The Blog and the Territory:
placing hyperlocal media and its publics in a London neighbourhood
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Declaration

I, John Bingham-Hall, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract

Accounts of communication technology use in neighbourhood life tend to foreground either media or space and treat the other as a backdrop. As a result, there is much research on the way neighbourhoods become the content of media and how media could be instrumentalised to improve local communities, but there is a lack of synthesis of media and built environment research allowing a nuanced understanding of the role of communication technology in neighbourhood life. This thesis addresses this gap in knowledge by developing a richer set of interlinked concepts and methods than that which is currently available to describe urban communications. Existing theoretical frameworks are expanded upon through critical development of a number of approaches to 'placing' the main hyperlocal news blog for one neighbourhood: mapping the locations it discusses; analysing the geographical and network characteristics of its social media network; and the development of grounded theory about the use of media in the neighbourhood through qualitative interviews.

The main arguments hold that even at the hyperlocal scale, theories of the national public sphere can help understand the way that imaginaries of place are formed through media; that a focus on subjective imaginaries and non-instrumental storytelling enables a better description of hyperlocal media use than on its instrumental value; and that neighbourhoods should be described as communication ecologies formed of multi-modal actor-networks of people, places, and technologies, rather than as separate spatial and virtual realities. The findings are largely methodological, demonstrating the possibility of placing media by mapping the issues it frames; of illustrating links between spatial morphology and the distribution of issues and social media networks; of using qualitative data to spatialize theories of the formation of the public sphere; and a proposition for a new method for building a socio-technical interaction network demonstrating the structure of the hyperlocal communication ecology.

List of author's publications

The following publications have been based on the research carried out for this thesis, not all of which are referenced in the text

Bingham-Hall, J., 2013. *On the search for space in the digital city: a dispatch from Granary Square.* Urban Pamphleteer #1: Future and Smart Cities 6–8.

Bingham-Hall, J., Law, S., 2015. *Connected or informed?: Local Twitter networking in a London neighbourhood.* Big Data & Society 2, 1–17. doi:10.1177/2053951715597457

Bingham-Hall, J., Tidey, J., 2016. *Visualizing social media's impact on local communities.* Visual Communication 15, 317–328. doi:10.1177/1470357216645710

Bingham-Hall, J., 2017. *Imagined Community and Networked Hyperlocal Publics.* AD Magazine: 4D Hyperlocal, 64–71. doi:10.1002/ad.2133

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1. Introduction

1.1. Research Question

Although thinking has moved on from the once-dominant notion that the virtual realm of mediated communications created by the internet, and its apparent affordance for communication between anyone anywhere, would make urban concentration redundant, there is still not a satisfactory way to build a nuanced understanding of media into analysis of urban social life from within the built environment disciplines. Current frameworks for thinking about this intersection tend to foreground either spatial conditions or communication practices when explaining the constitution of the urban public, with the other as a backdrop. Whilst some scholarship has very usefully built spatial concepts into descriptions of the mediated public sphere, these have tended to remain as concepts rather than being linked to spatial analysis or observation of spatially-embedded communication practices. This thesis aims to further bridge the divide between theories of the public based in media and in the built environment and contribute to an improved conceptual and methodological framework for describing the relationship between the physical public space of a neighbourhood and the so-called 'virtual' realm of mediated communication in and about that neighbourhood. Focused observation of a single neighbourhood and its main 'hyperlocal' news blog is carried out through four approaches: mapping of location data contained in the blog and its social media network; spatio-network analysis of its social media network; the development of grounded theory about local communication practices through qualitative interviews with residents; and communication ecology mapping based in actor-network theory. Both built environment and media theories of the public are expanded upon by linking them, respectively, to specific communication practices and urban morphologies observed in the case study neighbourhood, creating an argument that a better synthesis of these two realms of scholarship offers a much-needed and improved understanding of how media and space co-produce the urban public.

The specific question for this research, then, is: *how can hyperlocal media and its publics be placed in one London neighbourhood?* To place, obviously, is to "put in a particular position", by plotting geographically for example, but it is also to "identify" and to "classify".[1] Taking both senses of the word, this question should be understood then as one asking: by what means can the interrelations between the people who

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[1] http://www.oxforddictionaries.com/definition/english/place

constitute the public (or *publics*) of a locality, the *networks* of mediated (or otherwise) information flow and sociality that connect them, and the *issues* they use these networks to communicate about, be both *described* and *mapped*? Turning the question another way around, it asks how media and theories of the public sphere can be synthesised with thinking about space, and made an issue of the formation of place in the urban environment. Hyperlocal media – online communication in and about a specific neighbourhood – is an ideal site for observing the close relationship between urban form, sociality, and communication, and by focusing on a single case study a layered approach to observation of phenomena can be developed, as opposed to the more methodologically focused approach that a comparative study would require. The literature review is similarly layered, placing the case study in a wide historical and theoretical context in order to provide a rich set of thinking about communication in cities that can be developed through the methodological work, rather than a narrow methodological focus on studies of hyperlocal media. The main body of the research consists of the application of four approaches (combining methodological and conceptual reflection) to the case study area: mapping the geographical distribution of the hyperlocal blog's coverage; network and spatial analysis of Twitter connections in the neighbourhood; the development of grounded theory through interviews with local residents; and the expansion of actor-network theory into a model for spatial and network mapping of a local communication ecology. While these methods themselves are not new, they are recombined with spatial analyses in novel ways, allowing theories of media and the public sphere to be illustrated in spatial terms. So, although specific phenomena observed through these means are highlighted as findings, the overall aim is to use these findings to argue for improved concepts and terminology rather than to test a hypothesis. In conclusion, the research reflects on the value of the four methods presented in providing a newly spatial understanding of theories of communication, conceptually enriching these methods in the process. In doing so, the research offers a richer conceptual and methodological framework for studying the character of communication and the public sphere in urban neighbourhoods, that lays the groundwork for future work synthesising media and the urban more effectively.

1.2. Background

The starting point of this research was a personal perspective. In my own locality I was aware of repeated attempts to establish blogs or social media groups around built environment or political issues, or simply to share local tips and meet neighbours – all of which amounted to almost no sustained online neighbourhood life. I watched successive well-meaning media projects begin, struggle to build a following, flounder and eventually stagnate – frozen in time on a final tweet or Facebook post.

They seemed not to be able to get a foothold in the social space of the area. Where to go for news, then, when a new building site sprang up or went idle, a business closed or a new one looked to be opening? Where to find other locals to band together with and lobby the local authority for investment in public spaces or the protection of community assets, for example? Not knowing *who* or *what* was active in the locality felt like being disconnected. Disconnected from the space around me, whose future form was difficult to picture, as it began to be shaped by the rapid, property development-led change taking place across London. Disconnected also from local society: how to find those who live closest to you in the seemingly infinite recesses of the networked digital realm? Apparently I was not the only one with this issue. Time and again local events, community organisations and campaigns failed to gather enough of a public to sustain themselves. This was reflected in the use of local space too: festivals in the park suffered from lack of attendance and several new businesses failed to gain enough regular support to sustain themselves. Meanwhile, less than a mile down the road, a nearby neighbourhood appeared, online at least, to be very much alive. Its wildly successful blog documented every local issue and its Twitter feed seemed to be a vigorous forum for local debate. Every planning application was reported, along with every twist and turn in design, and wrangling between developers and the local authority. Every new business, whether a boutique decried as a harbinger of gentrification or a chain supermarket threatening "blandification" and rallying all voices in support of squeezed local traders, was discussed in advance. Every street party, festival, market and yard sale seemed to come alive, supported by enthusiastic posts and tweets from the neighbourhood blog and its impressive social media following.

Why, then, can one urban locality give rise to a vibrant online public life when another seems unable to support this kind of communication? This is a question involving variables deriving from urban form, socio-economic conditions, language, technological tools, and micro-level qualitative characteristics of communal life in these areas, let alone the impossibility of defining the boundaries of urban neighbourhoods (which Londoners love to debate). This, therefore, did not seem the setting for a scientific comparison, and was rather a critical question arising in my own mind in the context of ongoing debates around the conceptualisation and ideals of the role of communication technology in urban life. One, prevalent in newspapers at the time, was that our growing obsession with mobile phones, and the worlds of social and entertainment media they offer us, was creating a barrier between individuals and the 'real world' of immediate people and space. This built and social environment, in the face of a new virtual realm, seemed somehow taken on the moral role of the natural environment from which the city itself was once thought of as a violent and artificial severance.

Opinion pieces came with shock predictions of the decline of the city. "Our iPhone addictions are wrecking public spaces and fraying the urban social fabric" declaimed journalist Henry Grabar on US news site Salon (Grabar, 2013), with a techno-pessimism that characterized much popular media of the time. "Virtual worlds 'could replace real relationships'" predicts the science editor of a major British broadsheet paper in 2007 (Highfield, 2007). This way of thinking appeared to be a hangover filtering into mainstream discourses from the second set of discourses that form the background to this work: an academic body of thought prevalent in the last decade of the 20th century. These made much wider predictions about the relationship between new types of communication technology – that were often imagined to be free of the social constraints imposed by the geographies of the natural and built environments – predicting the demise of urban concentration as a necessary condition of human society, as we will see in the second chapter here. Finally, in terms of the context of discourse from which my concerns emerge, newer strains of thought emerging from academia, but particularly its intersection with design thinking and consequently from industry sectors concerned with the urban, perpetuate heavily value-laden imaginaries of communication technologies as a kind of saviour of urban society. New ways of communicating created by technological innovation were thought (as I discuss in section 2.8) to be able to reinvigorate social forms such as community, local democracy and the public life of the neighbourhood, many of which were thought to be disappearing throughout the late 20th century.

So, given the supposed demise of urban geography as a social condition, could it really be that the spatial conditions of one neighbourhood were more fertile ground for the development of internet-mediated social life than another? Given the supposed replacement of 'real life' by technology, how did this lively online realm reflect back on or materialize in the space of the neighbourhood? On the other hand, given the new enthusiasm for its transformative power in certain circles, how much of the vibrant public life playing out online in this neighbourhood should be attributed to the affordances of new technologies? Evidently with the weight of qualitative and quantitative variables mentioned previously, the bottomless theoretical chasms opened up with the issues of social causality, the definition of community, the workings of the public realm, technological progress and the problem of saying even what a city is, these questions could not be hoped to be answerable in one thesis. Nonetheless the case of one "hyperlocal" blog and its local territory seemed to offer the opportunity to get under the smooth surface skin of communication technology, unpack its innards and contribute to the development of a better language (for which read both critical and

methodological ways of speaking) for describing its workings in an urban context.[2] This challengingly broad but essential aim is, in the widest sense, the motivation for undertaking this research.

With these concerns in mind, then, this thesis revolves around a "hyperlocal" blog and accompanying Twitter profile, published on a voluntary basis by a resident of the London neighbourhood of Brockley for and about that neighbourhood. Imagining this hyperlocal blog as a community of users located in space but encountering one another online, the initial intention was to map the places it covers in its reporting, the outline of the area it serves, the locations of its readers and followers, and the social connections established through the social network aspect of its Twitter feed. Quickly it became clear that such a clear-cut data-driven methodology would not be able to account for the complexity of different modes in which residents used the blog, and the myriad ways information flows between it and other materials, spaces, media, and settings of communication. As anthropologist Daniel Miller has noted in a study of social media in an English village, published as this work was being finished, individual media platforms cannot be isolated and studied as complete systems. He makes a strong argument for an ethnographic approach with a "commitment to contextual holism" (Miller, 2016a, p. 17) when studying communication. Though his work was not yet available at the beginning of my own project, I have arrived at a similar conclusion via an iterative approach to methodology that started with formal social network analysis techniques in mind, akin to urban sociology, and has moved, as it took account of greater and greater levels of the hyperlocal blog's context, to a more qualitative approach aligned with what could be called digital anthropology. This was one of the most revealing aspects of the research: the internet is not a specified realm of practice but a range of informational flows, stores and processes that segue with newspapers, private conversations, architectural spaces and so on. Miller has recently commented elsewhere that "I have never, ever actually believed in 'The Internet'… I study populations whose online activities are a growing element of who they are and what they do. Yet no one lives just online" (Miller, 2016b). This is a belief I wholeheartedly support, and in writing up my own iterative research process I aim to argue for. Neither, in the end, do I "believe" in hyperlocal media as a complete system that is of interest in isolation. In itself it is not my primary concern but rather an emergent, non-designed phenomenon that unconsciously embodies much of the

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[2] With thanks to Saskia Sassen for putting in words the research question I have been trying to get at throughout, both in presentation (Sassen, 2016) and in (Twitter-mediated) conversation (Bingham-Hall, 2016a)

complexity of the interrelated ways people communicate through media and in urban space, and offers itself as a rich platform for investigating that relationship.

1.3. Defining Hyperlocal Media

What, then, is hyperlocal media? In research carried out for Nesta (National Endowment for Science Technology and the Arts) – one of the main contemporary institutional proponents supporting and studying it – hyperlocal media have been defined as "online news or content services pertaining to a town, village, single postcode or other small geographically-defined community" (Radcliffe, 2012). A later Nesta report states that 42% of internet-connected adults in the UK use hyperlocal media to access news "for the immediate area in which [they] currently live", and 21% for places visited (Kantar Media, 2013). This is not a niche mode of communication but a common way to gather information about places. Hyperlocal media are complex constellations of phenomena and it is therefore worth mapping out their many constituent parts in clear terms. These terms are by no means ones that are fixed in wider usage. Research on hyperlocal media is recent and fairly scant and the practice itself informal and non-industrialised, meaning a standardised language has not been established. So as a point of comparison and to demonstrate commonalities a different hyperlocal blog is used for illustrative purposes.

Figure 1.1: Homepage of the Kentishtowner annotated with terminology

Hyperlocal media start with a *place* – already a tricky term by many accounts but in this case a region of the built environment defined either administratively or by a relationship to centrality (these spatial definitions will be illustrated below as we map

out the case study area for this research). In this example the place is Kentish Town, a London neighbourhood that can be understood spatially as an electoral ward, or as a commercial town centre and residential hinterland, for example. From this comes "Kentishtowner" (see figure 1.1) – a title derived from a place-name that signifies the location specificity of the stories it tells. This could be described as a hyperlocal *brand*. A nationwide survey of hyperlocal media practice (Williams et al., 2014) has found a single hyperlocal brand usually adopts several different media *platforms*: blogs, Twitter profiles, Facebook groups, and so on. Each of these affords a different structure of communication. For example, the Kentishtowner broadcasts from one to many via its blog, with regular news and listings posts; it supports conversational many-to-many, non-networked, bidirectional communication between its users in the online comments sections of these posts; and it communicates multi-directionally as part of a network of followers and friends from its Twitter profile and Facebook page. In this case, unusually, it also broadcasts unidirectionally from one to many in the form of a print newspaper. Collectively, these media platforms gathered under a hyperlocal brand will be referred to as a hyperlocal *channel*. For those that hyperlocal media communicate with, several different terms could be useful to describe different modes of reception. Traditionally audiences for newspapers have been referred to as "readers", and as we will see the reading public is an important theoretical category that still has implications for the way hyperlocal communication is understood socially. However, in the case of hyperlocal media the term *users* could also be included to refer to active readers who comment on blog posts and reply on Twitter. This social aspect distinguishes internet-native hyperlocal media from previously existing local news media such as print papers and radio, which can be specific to cities or even parts of cities, but arguably communicate almost exclusively in one direction (from communicative publisher to receptive audience). For hyperlocal media, though some audience members are potential users, it is useful as a collective term and also for describing a *potential audience* presumably including all those who live in, work in, or visit a place but not, as we will see, limited to those people.

Most hyperlocal channels could be described as socially "grass-roots" in that they are created by individuals to report on their immediate surroundings in no official capacity (Williams et al., 2014). Nonetheless, the individuals who manage, write, and operate hyperlocal blogs will be referred to here as their *publishers*. The reference to publishing should not be confused with the professionalised industry of "Publishing", but understood in terms of its etymological roots. To publish is to "make publicly known,

reveal, divulge, announce." [3] Hyperlocal publishers are those that *make public* information about a very specific geographical area for a potential audience within that area. These publishers will at times need to be referred to as people themselves, separately to the channels they operate. Professional media brands regularly speak as active agents, taking a position on a certain issue so that an institution stands in as a collective mediation of individual voices. They also usually operate at geographical scales much larger than the hyperlocal street or neighbourhood. In professional national and regional media such as newspapers and TV channels, then, the social and physical distance between the bodies of publishers and the bodies of audiences is great enough that only mediated, one-way communication is possible. However, the bodies of hyperlocal publishers are in theory present and available within the hyperlocal spaces they publish in and about. The tensions and contacts between this physical reality *in* place and the un-embodied communication *about* place, mediated via the various aspects of a hyperlocal channel, will emerge later as a problematic aspect of both producing and using hyperlocal media.

Though the idea of online hyperlocal media is relatively new, the existence of localised media is not. Commercially-published newspapers have served towns and sub-regions of larger cities since the mid-19th century, when journalists established themselves as "a professional group with skills and responsibilities which were part of the democratic civic process" (Franklin and Murphy, 1998, p. 7). Local print news continues to survive in many places, and Brockley itself falls within the circulation of several south London papers. According to the 2012 Nesta report (Radcliffe, 2012, p. 7) hyperlocal blogs have emerged partly in the context of uneven geographical coverage of local papers but also to serve areas too small to be commercially viable for professionalised print publishing. Furthermore, local print news has been in long-term decline since the 1970s, facing pressure from local radio, national newspapers, television and the internet as alternative sources of news (Franklin and Murphy, 1998, p. 7). Alongside professional publishing, though, non-commercial newsletters are coordinated and printed voluntarily by residents, often through churches, parish councils or conservation societies (as also in Brockley). As will be seen later in section 5.4, these can serve even more of a hyperlocal area than a blog, but nonetheless to reach their audiences through physical distribution requires significant time-space investment on behalf of their publishers. So the internet can largely negate both economic and time-space constraints that have affected older modes of local and hyperlocal communication, allowing for increasingly specialized platforms serving all kinds of interests, including

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[3] http://www.etymonline.com/index.php?term=publish

both non-geographical issues and the concerns of hyperlocal places like individual neighbourhoods, estates or even single streets.

Given this distinction from traditional local forms of printed media and following the definition given by Nesta (see above), hyperlocal media will be defined in this research only as an internet-based mode of communication. This is in line with the suggestion in the most comprehensive UK survey of hyperlocal media to date that while problematic in the variation in its geographical scope, hyperlocal is "useful as a way of describing an emergent generation of a primarily digital community of local news producers" (Williams et al., 2014, p. 8). It could take the form of blogs, websites, discussion forums or social media feeds that are created specifically with the intention of speaking for and to a given geographical area but will not be taken to include other ways that place may be discussed or represented in geographically much broader online media such as national newspaper websites. Chapter 3 will offer a more detailed view of the workings of hyperlocal media via the specific case study in this work. Firstly, though, the following section delves into some conceptual and theoretical terminology that will provide the basis for the improved description, or critical 'placing', of urban communication that this research aims to establish.

1.4. Establishing Parameters

A stated interest in the relationships between communication (and its technologies), people (in the form of publics) and space (specifically urban place) sets up a very broad range of potential parameters, and I intend here to stake a claim amongst those by clarifying my understanding of some of the terminology at hand.

Hyperlocal media itself is complex, inasmuch as it implies issues of both *how* and *where* people communicate. Most theory to date has been concerned with just one of these, taking either location or information as a background to the other. Though society, space, and media are inseparable they have tended to be addressed in discrete theoretical arenas. In order to create a common language between these I will refer constantly to *communication*. Communities, arguably, are sets of individuals with something *in common*: cultural practices, political issues, spatial or intangible resources. In many cases, these practices, issues and resources may pertain specifically to a geographical locality. Communications is, literally, "to share, divide out, join, unite, participate" - "to make common".[4] At any scale, communication is that through which space and its physical resources become shared, and in which the

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[4] http://www.etymonline.com/index.php?term=communication

practices and issues of shared life are made. Media are technologies of various kinds enabling the inscription and carrying of communication through time and across space, augmenting the capacity for interpersonal communication beyond the limitations of unmediated physical contact. I will argue in chapter 2 that this is not solely a modern phenomenon but one that has been fundamentally intertwined with the development of the urban throughout history. Media, and technologies, are understood here as things that pre-date the modern era and have co-evolved with complex human society.

Mediated communication is carried out through a complex combination of physical infrastructures, devices, and content, most of which is beyond the scope of this research. I am concerned with the socio-spatial practices supported by communication in the context of an urban neighbourhood, rather than many other ways in which the built environment and media are co-implicated: spatial variations in infrastructural provision or socio-economic factors governing availability of devices and internet access, for example. Martijn de Waal suggests helpful terms that frame the scope of this socio-spatial concern. As I have done above, he describes each unique setting for social encounter (i.e. Twitter) as a "platform", and adds the following further definitions; the "programme" as a framework constraining how encounter is carried out on that platform (i.e. through public 140-character messages that can be linked to other profiles, and so on); and "protocol" as "specific behaviour experienced as generally applicable in a specific social context" (i.e. normalised behaviours within a platform whose protocol is for public, networked communication) (de Waal, 2014, p. 22). The analysis here will be limited to an interest in certain platforms for communication, *including* physical settings, and the protocols that emerge through their programmes, taking into account *who* communicates with *whom, where,* and *why*, in the context of a hyperlocal blog and its geographical territory.

Following James Carey, Harold Innis, Marshall McLuhan, Bruno Latour, and Martin Heidegger, the focus is not so much on media content and the socio- or psycho-analysis of its explicit or implicit meanings. These theorists "take media less as texts to be analysed, audiences to be interviewed, or industries with bottom line than as the historical constituents of civilization or even of being itself. They see media as the strategies and tactics of culture and society… by which human and things, animals and data, hold together in time and space" (Peters, 2015, p. 18). So while hyperlocal communication may well be tied up with infrastructural conditions, such as the variation in mobile phone signal or broadband speed from one street to the next, and interfaces with different types of device, the concern here is for the "strategies" and "tactics", via personal accounts and mediated observation of Brockley Central's audiences, and a

critical view of the way they "hold together in time and space" with other entities – human and non-human – that constitute the local.

Space, in this work, will be of concern for its separation of people and the need for it to be overcome; to be organized into the forms of place that support commonality; to be the topic of communication; and to be the setting for communication. Urban communication – taken as the protocols, platforms, and strategies for communication in and about urban space – is the fundamental interest here rather than technology, urban form, or social structure. The case study area and its hyperlocal media, then, are used as the basis on which to observe and describe a specific instance of urban communication. Because of this narrow focus a phenomenological approach permeates the research, though it is not intended to be positioned epistemologically within phenomenology as a worldview. Its aim is not to build a sociology *of* nor a design proposition *for* hyperlocal media or indeed urban communications, but to document detailed aspects of communication practices in a single neighbourhood from the point of view of its residents and their mutually affective relationships with the spaces, materials, and networked information pathways that support this communication. Such a focus could not make claims for evidence about general uses of technology and instead offers architectural and urban discourses, and communication studies, a richer language for taking one another's arenas into account. It does impinge directly, though, on contemporary debates about the relationship between technology and urban form.[5] As the content and protocols of media do not directly impact upon the pattern of urban form in the immediate term, it is argued that communication is the human practice via which technologies enable modulations of the role of space in the formation of urban society. Perhaps as this role is modulated, city-building takes on changed patterns to accommodate new ways of making things common. Hillier and Netto reject the notion that society and space *impact* upon one another should be rejected in favour of a "*two way generic*" in which "two sets of laws intervene between social activity and space – laws governing the emergence of spatial patterns from accumulated local actions, and laws governing the impact of those spatial patterns on co- presence" (Hillier and Netto, 2002, p. 182). I will attempt, through historical accounts describing the co-evolution of communication and urban form, and through the illustration of the co-production of hyperlocal media and local place, that a similar two-way process should be thought of in relation to urban communication. These historical accounts are intended therefore to introduce concepts that will be used throughout the work, and to show that an affective two-way

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[5] See Neal, 2013; Willis, 2015; Brighenti, 2012; and many more

relationship between cities and communication technologies is not only a feature of the latest wave of technological innovation. Though this takes us far from Brockley and its hyperlocal blog, it supports a core argument for the fundamental place-forming work done by communication. As Vaughan (2013) has suggested in relation to urban form, the future of cities has to do with their past. The same could be said, I would argue, for urban communication.

The aim stated at the beginning of this chapter itself contains a logical leap that I would also like to unpack. Already by suggesting the possibility of research into a 'relationship' between communication and space, or physical and virtual, or whatever else it might be called in different discourses, sets up a dialectic that is wrought with issues. Clearly many of the complexities of this relationship – or perhaps it should be called an entanglement or indeed simply a co-existence – will be drawn out in the body of the work. However, I do not take what is often thought of as the 'virtual', the communication space framed by the use of a range of mediating technologies, as an external factor with an impact on the 'real' communication space of unmediated physical co-presence (another caveat – even in physical co-presence much information is performed through the mediation of non-verbal cultural artefacts like clothing and bodily gesture, and even language spoken is arguably a mediation itself). Crang, Crosby and Graham give one of the most decisive accounts of the tendency in early internet studies imagining an effectual relationship between ontologically complete and separate realms of the real and the virtual. They surveyed key writings from the mid-1990s to the early 2000s that display a "deeply binaried conceptual architecture of urban-ICT relationships" (Crang et al., 2007, p. 2406) and suggest instead that the definition of good urbanity should be expanded to include the quality of communication – in the exchange of cultural information for example – rather than a narrower focus purely on material conditions. In doing so they strengthen the position of the human actor: rather than pitting the urban and the technological in a power struggle, with the effects on unwitting urbanites to be studied and measured, we have a constantly-produced "informational landscape" performed by its participants in an ongoing way via a diverse set of techniques – some of which are facilitated in different ways by new technological means. The side effect of this focus on the human as the common factor in technology and the city is the toning down of technological imaginaries in scholarly accounts, also observed by Crang et al. When technology is discussed on its own terms, without reference to the mundane ways it is employed as an everyday tool for social reproduction (as for example in hyperlocal media), it becomes "exotic" (Michael, 2003) and appears as "all-powerful… bringing with it an absolute spatio-temporal shift which, quite literally, 'unglues' previous notions of embodied urban life" (Crang et al.,

2007, p. 2406). This making exotic is evidenced in the notion of "disruptiveness" that is common in the popular and commercial discourse around new technologies (which are, after all, usually new commercial products) and that posits the ability of technological innovation to wipe away older modes of doing things in favour of historically discontinuous practices imagined and implemented wholesale by product designers.[6] The decision to use hyperlocal media as a platform for this discussion was based on an *a priori* observation that it is a mundane, everyday way of communicating, not created intentionally by the designers of technological devices, infrastructures or protocols but emerging organically from the everyday communication practices of a neighbourhood. Habermas frames these everyday practices with the notion of the "lifeworld" – collective realities as experienced first hand as opposed to the abstract "systems" of society and culture:

"it is only at the level of culture that formal and material, normative and expressive elements can separate off from one another in this way; in everyday communicative practice, where the lifeworlds of different collectives are demarcated from each other, they are now as ever woven into concrete forms of life"
(Habermas, 1985, p. 108)

Hyperlocal media, with its embeddedness in the scale of everyday being, is an ideal setting to describe the workings of technology in the communicative and social life of a neighbourhood. On this basis there are two key positions for this work. First that the 'relationship' between communication technologies and urban space is not one of distinct technical realms combining and modulating one another, but instead an entanglement in which practices emerge over time from the communicative actions of individuals who use whatever materials and techniques are phenomenologically available to find local commonality, with varying degrees of contingence on location and presence in space. The human actor, most importantly, is the core focus rather than the structure of the technologies themselves. Secondly that it is the 'mundane' communication practices of the everyday lifeworld, as epitomized by hyperlocal media, that shed light on the co-existence of technology and urban space rather than the 'exotic' potentialities of the most advanced state of the art achievable at any given time.

1.5. Outline of Research

The thesis is outlined from here as follows. Chapter 2 traces a theoretical narrative of the co-evolution of urbanity and communication, starting as distantly as

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[6] See for example the Time Magazine article http://time.com/3663909/technology-disruptive-impact/:
"Robotics, self-driving cars, drones, sensors, wearables and so on are just a handful of the technologies that could change our world over the next five years"

ancient Rome and Greece. This is essential in offering terminology and concepts that are later reframed via the observations made of the case study, and in situating the observed communication practices in historically continuous rather than disruptive context. Though it partially stands alone as a theoretical treatise on urban communications, chapter 2 also acts as a literature review for media in cities, more widely than the specific focus on hyperlocal media. Given the largely theoretical research aims of this research a narrow methodological and technical approach to the small literature addressing hyperlocal media specifically would not have sufficed. Chapter 3 'zooms in' to hyperlocal media as a specific instance of urban communications, giving a background to research on this specific phenomenon and introducing the neighbourhood of Brockley and its most popular hyperlocal blog as the case study, describing the socio-spatial characteristics of the locality, basic ways the blog can be used, its main types of content, how it is published, and what its Twitter feed is used for. Chapters 4 – 7 present the main body of the research, consisting of the explanation, results, and analysis of four approaches to placing media in the case study neighbourhood. Firstly, in chapter 4, data mapping techniques are used to create an illustration of the public sphere of the neighbourhood as a geographical entity, using information about the blog's coverage of issues and the location of its audience. Chapter 5 uses network and spatial analysis of the hyperlocal blog's Twitter followers to describe the network characteristics of this public sphere, and the role of spatial phenomena such as proximity and accessibility in forming network links. The importance of local businesses in stimulating the hyperlocal Twitter network becomes apparent, and theoretical approaches to the social function of the third space are drawn on to explain how local businesses provide an interface between the public sphere and the spatial realm of the neighbourhood. Chapter 6 consists of the development of grounded theory through qualitative data collected in 30 research interviews with residents of the blog's territory, focusing on their use of spaces and forms of media to develop a social and spatial understanding of their locality. Concepts from chapter 2 and observations from chapters 4 and 5 are illustrated through anecdotal evidence, creating an argument for the importance of combining technological means of data collection that show the accumulated traces of communication, with qualitative research that reveals how and why people use media to interact with their spatial surroundings. The interviews reveal communication practices that would be invisible to technological forms of data collection such as those in chapters 4 and 5, in which spatial and mediated settings for communication intersect to distribute stories about the locality, social protocols for communication are established in relation to urban morphologies at different scales, and individuals construct mental maps of the area influenced by their use of technology. From this

point, the blog is no longer the sole focus as it becomes clear that there is no sense in discussing communication in this neighbourhood without taking account of the full range of settings in which information is shared, through older media and in architectural spaces. Chapter 7 consists of a heuristic process carried out late on in the research, drawing on and developing techniques based on actor-network theory to combine the geographical, network, and qualitative data approaches explored previously to propose a framework for modelling the hyperlocal communication ecology of spaces, media, and individuals. Chapter 8 concludes by reflecting on the issues and potentials of each of these approaches and their epistemologies, developing a synthesised conceptual and methodological framework for urban communication and suggesting potentials for further work this opens up.

2. Urban Communication: from fora to phones

2.1. Introduction

Much theory, as has been suggested, foregrounds the transformational effect of these technologies – the internet, social media, and mobile phones – on the morphology and social character of urban space. These interpretations come in various permutations: pessimistic predictions of the breakdown of geographical community and unmediated encounter in cities; and exotic or even fetishistic ideas often grouped under the umbrella framework of "smart cities". All permutations of the notion that communication technology can and will cause a radical change in the socio-spatial development of urbanity make a similar assumption: that communication and the technologies that enable it have only been at issue for cities since the advent of what we recognize as electronic or digital media. What follows will present an argument that communication and its technologies have co-developed with urbanity and a set of concepts that underpin this thesis' aim to develop a better synthesis of research concerning the two. The foundation is laid to argue for a need for observationally-grounded theory that gives us more balanced ways of understanding how contemporary networked communication technologies might be at work in the context of urban locality. This theoretical survey will be essential in establishing some key theories that will be used to discuss hyperlocal media as a contemporary example of communication technology and its intertwining with space and location, in a way that is historically grounded rather than based on the assumption of a dramatic rupture in socio-spatial praxis.

2.2. Immediacy and Distance

Explicitly or otherwise, the idea that contemporary communication technology represents a rupture between society and space seems to be based in a belief in what Marc Augé calls "anthropological space" as the natural state of human relationship with place. Anthropological space, in Augé's telling, is a socio-spatial condition in which the material form of human inhabitation is a direct indicator of a stably structured social grouping "anchored immemorial in the permanence of an intact soil" and "ceaselessly re-founding" throughout time (Augé, 1995, p. 45). Though it plays on the questionable idea of a utopia untouched by any form of mediated communication, this idealistic notion is in Augé's view only "half fantasy". Indeed, Hillier and Hanson refer to isolated traditional societies in central Brazil, for example, where there is a full "correspondence" between social and spatial form (Hillier and Hanson, 1987, p. 263). In this situation all members of a given group inhabit the same geographical space, meaning there is no need for communication across distance to sustain the sociality of

that group. In all developed societies, though, there will be a degree of "non-correspondence" between society and space, meaning people are members of groups that are distributed across distance, because of migration, interest, or professional networks for example, and these kinds of groups will always require some form of mediated communication that can transcend space to sustain their links. Nonetheless, the idea of a physical community rooted in locality and immediacy seems to haunt urbanism, with the sense that shared space in a given locality should be a sufficient setting for and expression of 'community' or public life in that place and that the 'virtual' realm is a distraction from that locality. In other words, that observable face-to-face interaction in public space is the ideal form of communication. Don Mitchell critiques the "normative ideal" that public spaces – be they streets and parks or the much idolized *agorae* of Ancient Greece or *fora* of Ancient Rome – have ever been the setting for unfettered and free communication between strangers: "rather they have always been spaces of exclusion" (Mitchell, 2003, p. 131). In the kinds of traditional societies pointed out by Hillier and Hanson, material spaces and objects perpetuate social structuration so clearly that communication media are not required to describe or dictate the relationships of people to one another or to their material environment. Augé sets this up in sharp distinction to the "non-places" of "super-modernity" (Augé, 1995): hospitals, airports, shopping centres and motorways where all social negotiation takes places via the mediation of written directions for behaviour, broadcast via signs and tannoys. In the super-modern place of transit people are too abundant, diverse and fleeting for any behavioural consensus to emerge and be perpetuated through information derived immediately from the material present, as in the supposedly pure anthropological space. The behaviour of others in non-places appears strange and unstructured, and the crowd is one of discrete individuals rather than a coherent society. Social constraints are not evident from the visual cues carried by bodies and their physical surroundings and so are conveyed textually through signs, which broadcast the same information to every individual to ensure the minimum consensual understanding necessary to support the smooth running of the given situation. The sign is a distanciated form of communication. The information it displays often has nothing to do with the very patch of ground on which it stands: a road sign points the way to a distant town and a billboard conveys a product to be bought elsewhere and used in yet another place. The sign can be relocated or translated but still read and understood as a complete text. In anthropological space, according to Augé, materiality is the fundamental reality. Materials, artefacts and bodies are inscribed with cultural prohibitions and continuous identities that are so stable they do not require the overlay of the textual instructions that ubiquitously guide our use of space today. Travel, another fundamental state of modernity, is the act of *passing through* rather than *being*

in space*,* meaning that there is a very weak material encounter with the social affordances of place, embodied in spatial morphologies, usable artefacts and symbolic monuments. In order to know place, we require textual communication that can act over a distance, mediating the gap left by a distanced relationship with material reality. We come to know places by names, which are themselves media, rather than through deep knowledge of the material. In the terms of this study, it could be said that the anthropological communication setting is one in which the sum of communicative action that takes place in unmediated, materially-defined space (between people and people, people and things, and things and things) is a sufficient definition of the society at play in that space. Communication that is mediated via technologies of any kind – that is to say anything beyond face-to-face speech – is at a remove from this 'authentic' and 'complete' socio-spatial definition. As a result, this distinction between real place and communication has taken on a deeply ideological nature that pits media, modernity, distance and communication – modes of relationality associated with advertising, propaganda, and falsehood – against material, tradition, proximity, and embodied information – associated with trust, emotion, and truth. This ideological clash between proximity and media is evident in Venturi's use of the example of the contrasting archetypes of the Middle Eastern bazaar and the American commercial strip (implicitly all that is seen, normatively, as good and bad in urbanism) to highlight this same issue. "In the bazaar, buyers feel and smell the merchandise, and the merchant applies explicit oral persuasion" (Venturi et al., 1977, p. 9); for argument's sake we can say that the quality of a product or trustworthiness of a seller can be divined from embodied information easily available to a culturally proficient user. Conversely, "the Strip is virtually all signs" and "the building itself is set back from the highway and half hidden" (ibid.), representing the modernist tendency for distanciation. In the modern city vendors and products can no longer perform their properties directly to the consumer. They must be advertised on billboards: communicated about in a textual and pictorial mediation which by its visual nature has fidelity over a much greater distance than the more proximal senses of, in descending order of spatial reach; hearing, smell or touch. Though this example is a commercial one set in the historical present it offers a metaphor for a much wider-reaching theme. Proximal communication – being there, feeling, listening, knowing your environment – requires nearness between people and becomes attributed with a moral superiority, in a nostalgic response to modernity. Communicative mediation is associated with propaganda, advertising, consumption, individualization and the non-place: supposed hallmarks of the modern condition. Unmediated communication, bodies sharing an urban space, the idolised Greek agorae & Viennese coffee houses, neighbourhood networks of support and cooperation: these become the holy grails of an urbanism

paradigm that sees public life as something unmediated and contained within architectural and urban space. With reference to these implicit ideologies of the near and far I will argue that hyperlocal bridges this imagined divide, and helps us therefore to get beyond simplistic struggles between mediated and unmediated aspects of urban social life.

2.3. From Community in Place to Society in Communication

If anthropological space and super-modernity can be seen as extreme historiological archetypes describing the spatialisation of communication, the distinction between community and society hints at the way characteristics of both might be observable in cities. In the early history of Rome, groups of families called phatries, who formed tribes with shared religious beliefs, came together in agglomerations to create a multi-cellular urban pattern in which each locality was correspondent with a clearly delineated family community, unlike the concentric land-value based patterns more familiar in contemporary urbanism. Each family focused its territorial space around a hearth, admission to which affirmed membership of the family group (Fustel de Coulanges, 1901, p. 170). Evidently the mere presence of an individual within the space of a phatries was a guarantee of their categorical identity. Each male, having started life in this highly specified familial domain, became initiated into larger and larger spatial and social realms with age until at the age of eighteen he became a free man of the city with rights to public worship. Within this public realm he mixed with merchants, members of other families, and those from outside the city, so that in this walk of life spatial location was not a sufficient marker of identity. Both community and society were structuring aspects of the social and spatial system of Rome. The more enduring understanding of these social forms, though, has been inherited from Ferdinand Tonnies who saw community as a feature exclusively of intimate rural settlements, in contrast with the cold society of urban life (Tonnies, 1955). His notion of community was of an organic whole sharing total consensus, eliminating individual interest and in which all actions derived from an "a priori and necessarily existing unity" (Tonnies 1955, p. 74). Neighbourhood communities (as opposed to kinship or interest communities) by definition dwell proximally and therefore must necessarily hold common property such as public land and functional buildings (Tonnies, 1955, p. 49). In this understanding, the fact of dwelling within the spatial limits of a community is a sufficient definition of membership. Tonnies' opposing and implicitly pessimistic definition of society is one in which individuals may live proximately and in apparent unity (i.e. in peaceful co-existence) but each act only as an individual and with separate intent. Activities and goods are not common phenomena, and in fact society itself does not exist in any mutually-held external form, unlike the communal land and buildings

which both represent and in fact *are* the reality of community. Society takes place at the point of the exchange of goods (which in the contemporary context could be taken to include information), at which point individual wills are aligned towards the successful completion of a transaction and the good itself passes through a liminal, "between" stage of ownership, representing for that time a shared social value (Tonnies 1955, p. 75). To interpret, community has an observable *physical* reality, where the static material form of a settlement and its inhabitation is a sufficient definition of that grouping. Society on the other hand is *virtual*, played out in the movement of goods and information through acts of *communication*, meaning that no spatial location or form is a sufficient definition of that society or its membership. The ethical implication of this is that community, to fulfil this definition, must be supportive to all inhabitants of the territory to which it corresponds, while requiring them to submit to a common good, so communication takes on relatively constrained and homogeneous forms between initiates. Participation in society requires the means – financial, educational and cultural – to communicate and transact with a wide range of others, many of whom are strangers, with diverse goals and communication practices. It can therefore be exclusionary, but in being so affords a pluralism of modes of being.

Returning to the example of early Rome, communities existed as physical realities embodied by the individual territories of each family. Society also existed in Rome, coming into being where the freemen derived from each community gathered to trade, make inter-familial bonds and agree on city-wide political issues. These activities all required spaces that did not define certain social identities, like the boundary of the communal village, but supported particular kinds of communication that allowed society to coalesce from the separate wills of family groups. For politics it was the temple, where and *only* where laws were made under the sight of the gods and therefore sacredly validated (Fustel de Coulanges, 1901, p. 217). The Roman forum, though, is of course the most enduringly iconic spatial form allowing for the expression of society in the ancient city. Perhaps overly mythicized, the form was essentially a public square – large, open, and accessible enough to allow for a gathering of enough people to participate in all the communicative exchanges of goods, information and political opinion necessary to continue to constitute society. According to Spiro Kostof's history of urban form, Homer referred to the forum as "an assembly to debate in" (Kostof, 1992, p. 123) and it was explicitly associated with "social civility": a form of communication rather than of identity. As Rome grew and became more heterogeneous, it shifted from an oral tradition requiring memorized ceremonial performance to a bureaucratic written tradition in which the making of public law in the Senate was documented and mediated via an official gazette, and distributed to a wide

public (Innis, 1951, p. 45). So whilst the existence of the public in Rome has most commonly been understood in spatial terms, as a characteristic of the forum, debate was already in fact already being played out through a combination of media, which documented and circulated knowledge, and gathering in which that knowledge was debated.

Kostof's account, implicitly rather than with intent, continues to trace the development of communication. In medieval Italy piazzas were physically remodelled to reduce their potential for use as gathering points for insurrection. For example in the mid-1500s the governor of the town Gualdo Tadino, in response to sentiment against the papal state, subdivided the main square with a row of houses in order to destroy its potential as a site for the communication of political discontent (Kostof, 1992). Meanwhile the printing press was already opening up the possibility for the mass distribution of information in visual forms that could be consumed privately, reducing the reliance on immediate co-presence for the organisation of political action. McLuhan attributes to literacy the fact that "the private, fixed point of view became possible". Literacy, he argues "conferred the power of detachment" (McLuhan and Fiore, 1967). The medieval city was already becoming the crowd of individuals described by Tonnies as urban society, each with unique knowledge and interests and the ability to pursue them in private. Changes in the structure of urban commerce, Kostof notes, continued the trend of individualization. In 17th century France the power of city-specific trade guilds over public space declined, with trade being taken over by the early international merchant corporations and power centralized in the hands of city mayors (Kostof, 1992). Trade began its transformation from a proximate system, in which mutually-acquainted individuals met to exchange what they had available in a specific urban space, to a distanciated global system in which merchant corporations matched supply to the demand of unknown customers. Sennett (2002) describes the 18th century urban market in London as one that was competitive and filled with strangers. It dealt in systems such as investment and credit, which require customer and merchant to place their trust in an external legal system mediated through written laws and accounts, as opposed to a one-to-one trust relationship based on direct unmediated communication.

So the apparently modern counterpoint between proximal and mediated communication in conceptualisations of "community" are based on a highly ideological notion of a past situatedness of communication, based in theories like Tonnies' and Augé's. Pre-industrialised civilisation is thought to have been bound by "Gemeinschaft", in which in order to survive all members of a spatially-defined community such as a village must cooperate directly with one another in labour, acting

according to a common will to manage common cultural and physical goods shared amongst all those living within proximity (Tonnies, 1955). Community becomes a totalizing concept – location in a neighbourhood is a guarantee of membership of that geographical community of mutual affirmation. Gemeinschaft is consensus – a shared language and common will. This ideology is reflected in the contemporary language of community engagement in urban planning: "what does the community want?" Society - Tonnies' "Gesellschaft" – is, in contrast, a mass of individuals living in close proximity and with no common will other than the will to exchange goods and information, for which to have value it is "necessary that it be possessed by one party to the exclusion of another and be desired by one or another individual of this latter party" (Tonnies 1955, p. 78). For Tonnies, society was the lamentable condition of urban life and a degeneration of the form of human life in the unified pastoral community. Money, legislation and communication technologies, then, are the forms of mediation required to facilitate the exchange on which "Gesellschaft" is based. So from anthropological to super-modern space, and from Gemeinschaft to Gesellschaft, there has been a pervading sense that historically we have moved from unmediated, place-specific experience to mediated experience independent of space. That which is local becomes associated with that which is unmediated, and gains a normative moral superiority. This is not to say that this normativity has not been challenged: for Sennett the idea of alienation and distanciation is a modern myth, and he accuses contemporary urbanism of a social Romanticism, derived from Tonnies, that reifies community as "morally sacred" and leads to a withdrawal from the truly public realm of civil urban society into a parochial realm of boundedness and consensus (Sennett 2002, p. 297). Hillier and Netto also refer to the "flawed discourse" of what they term the "myth of historic spatiality", which sees the emergence of the society of psychologically free individuals as some form of "alienation or desocialisation" (Hillier and Netto, 2001, p. 196) in comparison to the imagined community of pre-industrialised cities. They refer to the externalisation of the institutions of collective life (law and politics for example) in "extrasomatic" organisations rather than embodied interpersonal relations as an essential feature of urban society throughout history.

So, as suggested at the beginning of this section, community and society can be seen as forms of socialisation that are both at play in cities, and have been as long as there have been means of communication of goods and of information. Defining these terms in terms of tendencies in social relations rather than as stable entities allows both to be observed in hyperlocal communication practices, placing these practices subsequently in a historical context that gives background to the interplay of media and space in forming urban sociality.

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2.4. Communication: for or against urbanity?

Whilst communication technologies have often been seen as anti-urban, working against the socio-spatial characteristics that define good cities, some accounts have argued that the structural characteristics of different communication media have been key in the development of patterns of spatialisation of societies. This section surveys approaches to the historical co-development of communication technologies and cities, both for the conceptual frameworks that contribute to the aims of this research but also to argue for the importance of understanding information flows within urban research.

Harold Innis' history of communication is foundational to such a position, and argues that the development of urban concentration has been closely bound up with the infrastructures of communication (Innis, 1951). Before it could be transmitted across space, information travelled with people, along global trading routes. Knowledge of paper production spread west from China along the silk roads and trading nodes at their intersections, like Baghdad, grew as early centres for its production in the 8th Century. The famous Library of Ancient Alexandria, built in the 3rd Century BCE, was arguably the first attempt to gather together the world's knowledge, stemming from the city's position as a hub for trading routes across the Mediterranean. Urban form in these cities, then, was produced in part by the movement of information at a global scale. Furthermore, communication protocols encoded in the varying communication media between ancient civilizations played a constitutive role in the way their settlements were distributed and laid out. The Egyptian and Roman empires encoded written law on lightweight and easily-replaced papyrus and scroll, meaning urban centres of power flourished and held sway over a large and changing empire through a flexible and constantly updated code of law. Ancient Babylonia, on the other hand, communicated using cuneiform script engraved in stone requiring huge skill and physical effort to be produced. As a result, power was enacted from small, inward-looking monastery communities across the empire where the means of production of cuneiform engraving was jealously guarded, and the laws they literally set in stone became stable and deified. So whereas the oral tradition perpetuates small, local societies that are stable throughout time, the introduction of conquest through armed force and large-scale trade networks necessitated the development of writing to support the expansion of society across space. Writing as a responsive and flexible communication technology, Innis argues, enabled the establishment of cities at the centre of communication networks that by their nature were outward looking to a regional hinterland. As Matthew Zook has shown, urban centres continue to be the

gatekeepers of communication flow, with the majority of the content of the internet being produced in the same global cities that dominated the pre-internet era (Zook, 2005). Innis' historical account is based in the notion of *affordance*: certain communication technologies offer distinct ways of sharing society-shaping information that constrain or afford the distribution of those societies across space, while control over those means of sharing information affords urban concentration. Furthermore, urban concentration itself is also a generator of information and therefore of the means to communicate it. "Supra-local organisations create society in spite of… the presence of spatial integration by dealing with the problems it creates, using primarily political-legal and space-based means" (Hillier and Netto, 2002, p. 196). In other words, close cohabitation leads to greater conflicting demands - over space, resources and the body – necessitating public and civic law themselves require codification and storage in written media. At varying scales, then, global flows of information contribute to the development of social density at their nodes of intersection, while intra-urban flows of information are stimulated by the demands of that social density. This suggests a complex feedback loop between physical urbanity and mediation at various scales, or even that mediation should be seen as a fundamental characteristic of urban sociality rather than a new factor to be taken account of in the light of rapid contemporary technological change.

This strain of thinking is contrary to a canonical inheritance in urbanism from theorists of the industrial city like Georg Simmel, who were prepossessed with the detrimental effect of institutions and their communication technologies on the social value of public space. Urban discourse, as was suggested in the previous section, has been haunted by the spectre of an ideal spatial setting in which the civic is played out in purely unmediated exchange or the correspondence between place and community. The forum has been portrayed as the ultimate representation of public: "the birth of a society in which the relationships between man and man are perceived as identical, symmetrical, interchangeable" according to Vernant (quoted in Jackson, 1987, p. 121). Such an ideology enables commentators like Joshua Meyrowitz to talk about a "pre-technological" social reality of communication tied to place, and to warn that "electronic media destroy the specialness of place and time... What is happening almost anywhere can be happening wherever we are" (Meyrowitz, 1986, p. 125). In fact, this supposed decoupling from place and time emerged much earlier, according to George Carey, who proposed that the key moment launching the modern era of communication was at the point technology allowed "symbols to move independently of geography" (Carey 2007, 126). Rather than the internet or mobile phone, this came in the form of the optical telegraph, which used the visual code of semaphore to relay encoded

messages from point to point at, theoretically, the speed of light. It was first used in France in 1794 when a connection was completed between Paris and Lille by Claude Chappe, giving birth to the history of telecommunications (Bouchet et al. 2010, 17). Before then, textual information could not travel across the surface of the earth faster than humans (or animals like horses and carrier pigeons) could physically carry it. The liberating of information from this limitation allowed for the emergence of transformational modern systems like nationalized markets with regulated pricing structures and less response to local conditions, and advertising that meant buyers and sellers were no longer in direct communicative relation with one another (Carey 2007, 130). So began the era when, in theory, any two individuals with access to the right pieces of technology could talk to one another from any two points on the globe. At first this relied on heavily material infrastructures like telegraph stations on hills and tall buildings in and between cities. However, as information could be communicated ever faster across space and as its infrastructure became either buried, in subterranean or submarine cables, habitualized, or invisible, in the form of radio- and microwaves, it appeared increasingly de-spatialized. Concurrently the conception began to emerge that location, physical co-presence in public space, or proximity within cities, would decrease in its importance as a structuring factor in the distribution of society in space. Such a conception has also haunted a popular response to technology from as early as 1909. In the context of relatively common telephone use and the early experiments leading up to wireless communication, E.M. Forster (1909) imagined a future in which every individual lived separately in a climate-controlled subterranean cell with access to streams of information via "lectures" broadcast instantaneously through a global network of sound tubes. Face-to-face conversations were held on flat tablets that could transmit images and physical contact has become somewhat taboo, so family members on opposite sides of the globe were barely more distant than neighbours. All sociability and social organization takes place via "the Machine", a central global control system, and when "the machine stops" (the title of the fable) due to a mechanical fault, humanity can no longer survive. This may have been a fictional polemic, but it epitomises the opposite of Innis' notion of technology affording urbanity, imagining instead the breakdown of urban concentration in the face of communication at a distance. This tendency in thought became amplified as communication became faster and more ubiquitous, in the form of the internet, and I will return to this in section 2.7. In fact, it made sense for nodes in telegraph networks to be located in cities, where information was produced and exchanged, meaning they contributed to cementing the role of urbanity as an organizational principle in national communication networks. Indeed, according to de Sola Pool, the telephone was linked to the birth of the modern high-rise downtown. In the space-competitive environment of the city centre, too dense

for telegraph systems, the telephone reduced the physical cost of transmitting messages from one building to another, making it possible to run a factory in the unglamorous industrial fringes from a glitzy sky-scraping office tower downtown: "being up there [on the twentieth floor] without a telephone would be an intolerable burden to communication" (de Sola Pool 1977, 140). Separating communication from physical movement has not automatically lead people to live further from one another. According to Glaeser the "central paradox of the modern metropolis" is that "proximity has become ever more valuable as the cost of connecting across long distances has fallen" (Glaeser 2011, p. 6). While we have already seen that cities were always the locus for the production of civic institutions that mediated the competing claims of urban cohabitation via law, modernity and its communication practices have precipitated the amplification of this mediation to a degree in which nearly all aspects of interpersonal cooperation take place via third parties – private enterprise, the legal system, trade unions and, crucially for the question here, the media (Giddens, 1990). The complexity and density of contemporary cities would not be possible without these interfaces and the networks of communication that support them.

Another common strain of thought in response to communication technology in the early industrial era related to the supposed breakdown of unmediated interpersonal trust *within* dense cities, rather than the actual physical de-concentration of those cities themselves. In this thinking, the spatially-bounded cooperation in Tonnies' traditional village community was the ideal form of social relation, replaced by the marketized transactional cooperation of technologized urban society. Simmel famously described the effect of this marketization on the "mental life" of the metropolitan, in which inter-subjectivity is replaced by rational social intercourse based purely on quantifiable mutual benefit, allowing an intellectual mind-set liberated from the custom and emotional disclosure of the community (Simmel, 1903). In this reading the "dense crowds" and "bodily closeness" of the public spaces of the city are not a basis for communication but "make intellectual distance really perceivable" (Simmel 1972, 324). Louis Wirth, observing the rapid urbanization of the United States in the first half of the 20th century as it was supported by new forms of transport and communication (Wirth, 1938), recognized that cities were not constituted by discrete homogeneous groups acting with common will and self-imposed social controls, as in Tonnies' Gesellschaft version of community, but as a mass of heterogeneous individuals each acting according to their own will. This implied the assumption that common ground in a social sense could not be assumed as a result of sharing space, either residentially or in public. Whilst this frees the individual from the rigid social controls imposed by collectivity it also disempowers the individual. Individuals cannot rely upon access to

the social capital of neighbours and must seek it out in the form of associations of interest. Lewis Mumford agreed with Wirth in principle, but took a more hopeful outlook. He saw "indirect forms of association with the aid of signs and symbols" (which could be read as technological mediation) as supplementing rather than replacing "direct face-to-face" intercourse (Mumford, 1938, p. 481). Whilst the transfer from primary social bonds in undifferentiated groups to purposive association weakens social ties it strengthens society as a whole, and this is one of the primary functions of the city for Mumford. Giddens takes a similar approach, characterising communication modernity as bringing about the most radical discontinuity in social organization yet seen in human history, both extensionally into new global social connections, and intensionally as the alteration of intimate features of daily life. The global standardization of time, money and political institutions, he argued, leads to "the 'lifting out' of social relations from local contexts of interaction and their restructuring across indefinite spans of time and space" (Giddens 1990, 21). He analyses this change in terms of the structure of "trust relationships". In pre-modern communication systems, trust is limited to the socio-geographic boundary of the settlement, within which strangers are an automatic threat and neighbourly association is institutionally required. Modernity on the other hand requires trust that ubiquitous strangers will remain safe and uninvolved - expressed through Goffman's notion of civil inattention and Simmel's metropolitan mind-set – and abstract systems of legality and politics will uphold institutional aspects of life. Interpersonal trust therefore can only be *earned*, through emotional disclosure within a supportive community of friends or family (also described by Sennett (Wellman, 2001a) as a feature of modernity though in a negative sense). In these accounts, then, technology does not challenge the fundamental ability for urbanity to be created but it does drain the physical reality of bodies together in urban space of the social value of interpersonal trust, relying on a notion that communication technology is an incursion on some pre-existing ideal situation.

Manuel Castells' foundational and ostensibly bleak reading of the spatial disadvantage of this new social organisation, which he called the "information society" (Castells, 1989) (within which he coined the term now in standard usage), provides a more nuanced, if critical, set of concepts. In the 1980s, Castells observed that advanced economies were already well into a process in which the mechanization of labour was making production more efficient and allowing economic and population surpluses that were absorbed by the creation of a new category of work across all industries. Bureaucratization, performance tracking, supply chain monitoring, customer services, increased advertising and product information were all aspects of a burgeoning information layer to previously more materially-focused processes of the production

and distribution of goods. These kinds of activities pre-dated computer-mediated communication, and he argues rather that computing arose in response to an economic demand for new ways to process and communicate this information. Once culturally embedded, new information and communication technologies (ICTs) accelerate the restructuring of capitalism around knowledge-transfer, which is a process still underway. A salient point of this aspect of his argument is fundamentally related to a notion that has been raised throughout this work: technology is not an external factor that has changed the way people communicate, but an emergent phenomenon given rise to by the aggregation of many individual interrelations over time, that then gives affordance to and perpetuates those forms of interrelation, helping to establish them as new norms. Cities are technologies that work in this way too: as Hillier has argued, urban form is neither cause nor effect of social structure but an interlocutor in its articulation. Similarly, ICT is neither cause nor effect of the way people communicate in cities, but a reciprocal player in the evolution of these practices. Another key aspect of Castell's argument is that the information-based economy allowed clerical-professional jobs to be upgraded in educational demand, while repetitive tasks were automated and manual jobs labour downgraded in economic worth. The surplus at this lowest level has absorbed by informal and black market economies. As a result the city became, in terms of communication and space, a "dual" system: mobile urban middle class lifestyles operate in a "space of flows", connected to a global network of cultural and economic distribution and opportunity which is relatively unreliant on immediate spatial conditions; and a relatively immobile world of informal and low-paid workers living in the "space of place", dependent entirely on physical proximity to opportunities for manual work offered by the inner city. In real terms these spaces do not really exist and the aim is not to delineate them materially. Castells uses this conceptualization to argue convincingly about the ways in which power is wrested out of the hands of territorially-based governmental structures – whether national, regional, urban or local – who cannot control corporations that create their own global power structures through the constant international flow of economic and knowledge capital between and within organisations. "Social meaning evaporates from places" (Castells, 1989, p. 350) as power is dissipated throughout a network of technology (in contrast to the Orwellian notion of "Big Brother") leaving "no centre of power that can be held responsible for specific social issues" (ibid., p. 349).

So whether taking a critical view of communication technology, as in the case of Castells, or a more benign one, in the case of Innis, the key concept for this work from these accounts is that communication practices are foundational to the development of urbanity as well as born from urban conditions. Critiques and accounts of urban

communication that take technology as solely a contemporary phenomenon are disjointed from an important historical context, and those that see it is an external influence tend to simplify and idealise a supposedly pre-technological physical reality of urban form, which has been the focus of this section, and of urban social life. It is the latter of these that is the focus of the next section, which makes a similar argument for historical context in the particular ways people have imagined themselves in connection to one another through media.

2.5. Conceptualising Publics

Urban communication, a notion used fairly generally so far, is of course extremely broad and contains within it all sort of spectra, including that between publicness and privateness. This study is not concerned with the many complex ways that individuals communicate directly with one another in private in cities, but with the way that information is shared publicly. In private we inhabit homes, offices, enclosed architectural spaces, but public life operates at the scale of the neighbourhood and its streets, parks, cafes, bars, and so on. The neighbourhood itself is in a sense a unit of the public, shared physically and culturally by its inhabitants. Furthermore, blogs and social networking sites have been widely heralded as the new "digital agora" (Kirk and Schill, 2011) or the "public space of social media" (Tierney, 2013) whether at a neighbourhood scale or on the national arena. A thorough unpacking of what 'the public' is, framed again through historical and theoretical background, is essential to the aims of this research.

There is a long and contested history of the meaning of 'public', going back to the *res publica* of Ancient Rome, denoting a public good, issue, or affair, and giving us the notion of the republic, which cannot be recounted in full. Critically for this work, though, the public came to be thought of specifically as an issue of communication in 1684 when Pierre Bayle coined the term *Republic of Letters* to describe the newly democratised space of knowledge and debate opened up by the distribution of newspapers. In his *Geographies of Media and Communication* (2009) Paul C. Adams describes this as the "the first virtual place" (p. 35) and "a virtual community of readers and writers" (p. 34). The virtual, by this definition, is not an artefact of the internet but of communication, consisting of immaterial links imagined between readers of shared texts. Notably, though, Adams interchanges the 'public' inherent in the Republic of Letters with a 'community' of readers and writers. In this section I will argue against this interchangeability, drawing on accounts that emphasise the distinctive socio-spatial forms of the public and the community to provide a basis on which to observe the workings of each in the case study in this work.

Jürgen Habermas links the establishment of a public sphere with this Republic of Letters, emphasising its inextricability with communication and therefore implicitly, via Paul C. Adams' interpretation, also defining the public as something virtual. Habermas credited new communication networks of the 17th century for the emergence of the nation as a spatial unit. A national communication infrastructure, in the form of a postal network, had been growing since the 16th century. As a result merchants "outgrew the confining framework of the towns and in the form of companies linked themselves directly with the state" (Habermas, 1991, p. 24) in the form of a national public sphere closely linked to the development of a free market and the increased flows of people and wealth. Meanwhile Burghers – individual traders whose status was linked to a specific town and were therefore confined socially to fixed communities – saw downwards social mobility. So the social stratum of a mobile bourgeoisie concerned with state regulation of trade emerged as a national public, while those confined to the communal relations and issues of the local became isolated, in a move reminiscent of Manuel Castells interpretation of the severance of the privileged space of global flows of information and wealth over those trapped in and reliant on the material provision of the space of place (Castells, 2004). So in this new, national, virtual public sphere of letters, discourses of taste, opinion, and politics circulated in increasing degrees in written, linguistic forms between strangers and with less need for bodily co-presence. Already in nascent form since the invention of printing, the press in the 17th century took on new scale and significance as the natural vehicle for this national public opinion. For the first time the *private* royal court had to legitimize itself politically before this collective mediated voice of the emerging bourgeois *public*. In Habermas' telling the public is not itself something that occurs in architectural space but at its very core created by mediated communication. The revered 17th century coffee houses, for example, were not places of unfettered and unmediated chance encounter, but where readers came together to pore over and discuss the latest national or foreign issues framed by newspapers. "This stratum of 'bourgeois' was the real carrier of the public, which from the outset was a reading public" (Habermas, 1991, p. 23); in other words the realm of mediated issues conferred 'publicness' on the spatial gathering point of the coffee house through the sharing of public issues offered by the wide distribution of published news. The coffee house, like the forum, is the embodied public space, and the press the setting for a growing disembodied realm of public debate played out in purely written form.

John Law follows and expands upon this theoretical basis. In his view the public, as a social rather than spatial reality, does not exist *a priori* in a given location but is brought into being by the framing of issues in media. Like Habermas and Innis, he holds that

issues help perform geographical entities as coherent territories but complicates the totalising concept of the nation. Publics and their territories are as multiple and overlapping as issues, and have multiple scales depending upon the issues framed. In his example: "GDP [Gross Domestic Product] projections coincidentally help to perform that patch of territory we call the UK as a social and economic reality. Rolled into a narrative 'the UK' becomes something we can relate to and retell" (Law et al., 2014). In doing, he argues, this dominant national framing hides regional variations that are framed more locally in debates about GDP inequality across the UK and help to perform conflicting publics within those regions. In Law's interpretation an issue has not just instrumental value as a basis for political debate between individual citizens, but symbolic value as a unit of common awareness that allows us to imagine ourselves as part of a social collectivity sharing in that commonality. All the while, though Law does not focus on the term, these publics are still virtual. Loureiro-Koechlin and Butcher (2013), addressing the meaning of 'virtual', note that "Castells (2009) defines virtual communities as self-elected networks of interactive communications organised around a shared interest or purpose, with communication sometimes becoming the goal itself". So whilst the term 'communities' confuses things somewhat, and I will return to the distinction, the definition of *virtual* as a form of association around common interest, and both through and *for* communication on that interest, is highly valuable. John Law's issue publics, then, are virtual groupings formed through communication, which despite their non-reliance on co-presence are specific to spatial regions. To extend the logic into the realm of this research: if a country or a region can be performed as a coherent a socio-economic reality in media, can not a neighbourhood not be seen in the same way? Furthermore, if publics can be specific to places but not rely on physical co-presence, how could we *place* those publics in space?

Virtual publics could perhaps be traced back even further, though. The mediated network of communications within and between cities in the Roman Empire, described by Harold Innis, formed a setting for the representation of social coherence encoded in mutually agreed law. With knowledge of this law in hand, derived from access to written media, men of the city could come into the forum for trade and other generic functions, share gossip and opinion about the issues of the day, and in doing so share in embodied re-enactment of written public knowledge. Mediated communication, the documenting of public debate and transmitting of law through written documents, reinforced and intersected with immediate communication in public space. Furthermore, these two intersecting realms of communication structured space at different scales: immediate public encounter with other physical bodies focused the city around a convex spatial opening framed by architectural form while mediated

communication across distance enabled an otherwise incoherent geographical region to be imagined and performed as the spatial entity of the Roman Empire. The relationship between mediated and unmediated communication, then, is something like a relationship between embodied, real, architectural space and the virtual, unembodied space mediated via awareness of distant issues, or what Stephen Kern calls the "simultaneous drama" of global news (Kern, 1983, p. 295). In other words, what was later thought of as "physical" and "virtual" were already taking shape as realms of communication in classical civilization.

So contemporary issue publics, Habermas' reading publics, and readers of the gazette of the Roman Senate – all these might be thought of as virtual collectivities that exist purely in communication, centred around common interest. For much media scholarship in fact, human society exists in communicative transactions, rather than in urban co-habitation. From the tablets and parchments of the ancient world to newspapers and the internet, society has partly been a virtual system of information projected in mediated form through time and across space, as well as a materialisation of people in space. Any individual can only have direct experience of an extremely limited range of other individuals, social practices, and issues, that are not sufficiently complex to form what we could call society. Stored in mediated representations of societies and publics beyond the spatial reach of the individual, then, are "central realities" (Couldry, 2005) that allow the organization of everyday life around – and often in opposition to – what is normal, legal, expected. Of course this is a simplification of a huge tranche of media theory, but it serves to highlight a fundamental distinction. Where urban theory tends to see the ideal public in 'real' spatial settings – the public realm of streets, squares, and civic architecture – Habermas and his followers locate it in a public sphere of mediated discourses that have been characterised here as virtual.

Hannah Arendt offers two meanings of 'public', helping bridge the divide between the spatial public realm and mediated public sphere, as well as clarifying the public against the idea of community. The first meaning relates to that which "can be seen and heard by everybody and has the widest possible publicity" (Arendt, 1987, p. 5). Private experience – subjective, non-discursive and constantly changing – is made public when, through the spoken or written word, images or other media, it is communicated. This communication fixes the subjective into a stable, discursive message that can be translated and stored, and therefore referred to as part of a public discourse. By witnessing this making-public, or publication, an individual becomes aware of their commonality with other witnesses. "The presence of others who see what we see and hear what we hear assures us of the reality of the world and of ourselves" (ibid., pp. 5-

6). Via this reading of the term public, an important link emerges between space and media. The Latin *publica* was 'of the people or of the state', as well as 'common, ordinary and vulgar'. *Publishing* then is the transformation from being hidden from view and knowable only individually to being available for all to see and use. When urban or architectural form is produced in a way that makes it publicly visible, it is perhaps published: it is in general and common view. So publishing, the making public of human experience through the creation of material form and texts in media, gives rise to a shared reality for an audience of witnesses that comprise the public. This is not the same as a community. Arendt likens a community to a religious brotherhood and characterizes it as "unpolitical, non-public" (ibid., p. 8). Community, she upholds, is based on the structure of family life, in which strong and inflexible bonds are sustained through direct interpersonal contact, and in which a public realm cannot emerge. This structure was also the basis for religious communities, often referred to as a 'brotherhood': "a bond between people strong enough to replace the world" (ibid., p. 8). So whereas community is tied together by a deeply parochial spatial realm – whether the fully private space of the family home and religious commune, or the protected space of the gated community and isolated hamlet – public space separates individuals as much as it relates them. In public we are aware of being alongside others, seeing and hearing the same, but not face-to-face in direct contact. Arendt offers a spatial analogy to explain:

"The weirdness of this situation resembles a spiritualistic séance where a number of people gathered round a table might suddenly, through some magic trick, see the table disappear from their midst, so that two persons sitting opposite each other were no longer separated but also would be entirely unrelated to each other by anything tangible"
(Arendt 1987, p. 8)

The table separates, preventing the intimacy of a private relationship, but those who use it share a common focus. Without the table there is no separation, but no commonality. The same could be said of a street. Spatially, its generic function is as a mechanism for movement and the interface between people, commerce, and private thresholds (Hillier, 2004, p. 262). It is not ostensibly a setting for communication. Its correct functioning as a movement space relies on the ability of individual people to pass one another without direct face-to-face encounter, which could quite literally, in a physical sense, block movement. Arendt's understanding of the public, then, is one in which we are alongside one another but not in direct encounter. That 'being alongside' is not happenstance but has an important symbolic dimension in the formation of a

common world. Another spatio-cultural analogy illustrates this. In almost all types of space for performance – concert halls, theatres, lecture rooms – tightly packed seats face a stage, directing the gaze outwards towards the same spectacle but avoiding direct interpersonal encounter. Strangers are brought into the most intimate scale of co-presence, sharing a space and even bodily contact, but remain strangers with little or no discursive communication despite reams of non-discursive, physical text. Yet, while these strangers are not in direct communication they are in a kind of networked communication, triangulated via shared *witnessing of* and common *connection to* the same framing of information on stage. The special name for this kind of public is an audience: a temporary public gathered around a form of entertainment, whether live or mediated. We also know, because audiences can be both co-present (i.e. spatial) in the case of the theatre, or not co-present (i.e. transpatial) in the case of television and radio, the shared witnessing rather than the physical gathering is what makes the audience. Furthermore, the act of performance is itself one of publishing / making-public: the making-public, for an audience, of the subjectivity of an artist, writer, musician, to provide an external stimulus for response. Take the stage out of the theatre and it becomes a semi-private space housing a crowd of people. Given time that crowd might get to know one another. A gathering of people in a room getting to know one another is what we would call a party, and parties are not publics but crowds of private individuals. Without the external stimulus of the performative making-public on stage as an impersonal, public issue they have no choice but to rely on inter-subjective revelation as the basis on which to establish commonality. It is the introduction of a common source of information, via which a triangulated rather than direct communicative connection is established, that transform crowds into audiences, private into public. The public, then, can be *both* spatial *and* virtual: physically co-present yet only in communicative connection via the stage and its artistic mediation. It is perhaps clear how this idea of making-public through media will be of value in describing the publics that bear common witness to hyperlocal publishing.

Richard Sennett develops this in more specifically spatial and cultural terms. Like Arendt, he contrasts the public realm (an artifice of human construction) with nature (a totalizing concept for all existence). As the right to a private life developed in the 17th and 18th centuries in distinction to the new public sphere, he argues, the home became seen as the realm of the natural, unmediated, authentic self. Individual houses were built for the first time as the domain of single-family units in which intimacy, genuine emotion, and bodily functions were carried out, literally, behind closed doors. The "human animal" of the home was made into a "social being", as Sennett puts it, through the engaged yet aloof performance of public civility on the streets. "While man made

himself in public, he realized his nature in the private realm" (Sennett, 2002, p. 18). The right to silence and to be left alone in public space emerged in this context as a new phenomenon Western capital cities from the 19th century, increasing the focus on mediated discourse as the carrier of public opinion and further decreasing the emphasis on physical co-presence in public space for political and social interchange (although as we have seen, mediated discourse has always had a role in this). "Knowledge in public was a matter of observation…no longer to be produced by social intercourse" (Sennett, 2002, p. 27). The design of urban public spaces at this time began for the first time to reflect its changing role. Both Kostof and Sennett refer to the English garden square, such as those in the Bedford and Southampton estates now known as London's Bloomsbury, as a unique new form that raised symbolic impact above the functional imperative as meeting places for trade and information-sharing. The English garden square is a "museum to nature" where by the 1720's "peddlers and hawkers" were legally evicted (Sennett, 2002, p. 55) and over which immediate residents had a defensible exclusive claim to the use of space. Similarly, the establishment of parks in London especially signified the value placed upon silent, meditational uses of public space such as the promenade in nature and where the greatest permissible intrusion was the polite, symbolic greeting of a nod of the head (Sennett, 2002, p. 85).

It is clear, then, that a theoretical and experiential gulf emerged between public space and the public sphere, leaving conceptual gaps between the workings of mediated communication and physical space that persist to this day. Hillier and Hanson argued that the built environment was the medium that could explain the invisible networks of affect that aggregated to form society, with the notion of description retrieval. "Description retrieval enables us to conceive of a discrete system, and even perhaps of a society as a special kind of 'artefact': one whose embodiment is its output" (Hillier and Hanson, 1984, p. 44). A system emerges as individuals retrieve a description of global system properties to build a mental model of how society is spatially patterned. Hillier and Hanson (1984) briefly mention a "communication system", but it is written off as an incomplete description of how effect is transferred at a distance between non-contiguous elements (people) that form a society. Whilst a communication system is not enough to explain how society is re-embodied in real space it should arguably be better re-integrated into 'spatial sociology'. Hillier suggests that individuals retrieve a description of socio-spatial relations by taking account of local instances of relations between spaces, such as between a commercial shopping street and residential side streets, and inferring global properties of the system (city) as a mental spatial model. This assumes that the description is always retrieved of a location whilst in that

location, rather than via any form of mediated communication. Society has no identifiable nature outside of spatio-temporal reality. Therefore, a hypothetical communication system between individuals suspended in some kind of non-space, in which relations can only be described in terms of network topology and not spatial relations (proximity, distance, adjacency etc.) does not describe a society. However, neither does a spatial process of description retrieval and re-embodiment, even with the abstract rules that might be inferred from that process, describe the lived reality of a city. Relations between individuals and space are not just experienced first hand. They are also described or documented and communicated through various mediated forms. Social forms, real or otherwise, that are spatial concepts - 'local communities' for example - are described in relation to other spatialized social categories such as 'new arrivals' to a locality. Similarly, spatial forms are described in media in terms of their social implications: the impact of a new building on its socio-spatial context, for example. So perhaps the communication network transmitting various mediated representations of socio-spatial relations could be included in the understanding of how society emerges from a set of discrete and self-contained individuals by applying "description retrieval" to experiences of communication. Hypothetically, individuals could expand the model of socio-spatial relations built on the basis of first-hand experience via mediated representations of society in space, and indeed this will be observed here in chapter 5. Furthermore, there is a spatialized aspect to access to communication media. Referring back to the example of ancient cities as nodes in a communication network tied to routes for human transit, could not an individual understand their spatial relationship to wider society – in terms of being at the centre or the periphery of a spatial society – via their level of access to communication and the time it takes to reach them?

Here, another term from *The Social Logic of Space* is useful. Whilst communication technology now enables those at the spatial periphery of an urban or national society to receive a message instantaneously, via technological means, it does not mean that the message has travelled independently of space. Communication technology is not *non-spatial* but *transpatial*: it can bridge the distance between two points in real space instantaneously via the transmitting of information, but those points remain spatially separated. So the description we can retrieve of society at any given moment may be spatialized, but it could extend to a space beyond that which is within immediate sensory reach, which we can see and hear without the aid of communication technology. In more pragmatic terms though, there is a spatial inequality of access to communication infrastructure. Whilst cities are largely well served with high-speed broadband and 4G wireless mobile internet, many rural locations still lack any mobile

signal at all. These are spatialized infrastructural relationships, all of which could arguably contribute to a mental model of socio-spatial relationships via description retrieval of communication networks. The idea that description retrieval could happen through media complicates Hillier's model almost infinitely, given the ever more fragmented and divergent descriptions that any given local manifestation of a much-contested 'rule' could have, not to mention the mediating of experiences of space and social processes. In complicating it, it perhaps brings it closer to reality. It also offers rich ways to describe mediated communication in spatial terms which will be made use of later.

The *transpatial* is a concept with further value to offer this research when opened up further. Hillier's definition draws on Ferdinand de Saussure's linguistic theories: real things – objects, organisms and so on – that can be grouped together based on characteristics form *categories*, which are essentially abstract, imagined concepts that create groupings of individual entities that could be anywhere and are only integrated by their similarity. So members of the same category are linked *transpatially*: they exist within space but they share a conceptual connection that transcends space. Things that can be grouped together because of proximity or contiguity demonstrate *spatial* integration. They need not be of the same category but share a location in common. The boundaries of this location may change depending on the frame of reference: the grouping we call a copse, of different types of trees, might need to be within metres of one another to be seen as such, where as a spatial grouping of different types of people, in what is often called a community, might be able to occupy several square kilometres of territory. Say that local community is called Brockley, and this is where I make my home, and I belong to the social category of people that undertake academic research for a living, then I have a spatial identity as a 'Brockleyite' and a transpatial identity as an academic. Several things are at play here that are revealing and complicated when communication technology is brought into the frame. The first, is the fact that transpatiality is something very much like virtuality, in more ways than one. The connection between two members of the same category, as we have seen, does not depend on a specific spatio-temporal location, yet it still exists in space. When we say 'dogs' we are referring to a conceptual transpatial identity applied to a great diversity of animals with sufficient characteristics for dog-ness. It does not matter where all the world's dogs are at the moment we invoke that concept, but as a category of real things they *are* all somewhere. 'Dogs', the category, is a virtual grouping of individual dogs that *is* transpatial, because it does not rely on the location of any given dog, but *is not* non-spatial, because dogs do exist in spatio-temporal reality. In this sense the link between members of the same category is virtual, because the link itself

does not have a spatial manifestation but is asserted through language (in the act of naming these diverse creatures 'dogs') which in many cases will be contained within media. Apart from studies like that carried out by Louireiro-Koechlin and Butcher (2013) on the role of proximity in forming Twitter networks, the same has usually been thought of in relation to internet-mediated virtual communities, and also virtual publics like the Republic of Letters. Communication media have been thought to flatten distance and act as neutral screens on which individuals can project their subjectivity. Location does not matter: as long as someone can access the necessary device – whether that be a newspaper or a mobile phone – one can be part of it. The mistake has been to think of the virtual therefore, as non-spatial rather than transpatial, or to think that it exists in virtual space that is outside of spatio-temporal reality. It consists, in fact, of solid human beings occupying three-dimensional locations in space, who happen to be able to transcend their lack of spatial integration in order to act upon their transpatial integration by using a mediated, rather than physical, platform for communication. So if a virtual community is one of integration around shared categorical interest carried out purely through communication, what happens, as in the case of hyperlocal media, when that categorical interest is in a specific place? Could spatial integration become transpatial integration in a mediated communication setting? No matter where Brockleyites are, they can recognize one another's identities as people from Brockley via mediated communication. This is not just an issue of communication though. Whenever we encounter someone from the same place in another place we become categorically similar in relation to the 'other' place. So in this sense, when we experience spatial integration in a 'virtual' setting it is not *in* the place, so becomes transpatial integration, but nonetheless it is a spatial interaction because it relies on the fact that Brockley is a recognizable region of space within which we both live.

Finally, Hillier has a conceptualization of the notion of virtual community ostensibly unrelated to and predating its definition as a social grouping carried out around shared interest in mediated spaces like online chatrooms and Facebook groups, but which could be used to elucidate the meaning of a communication-mediated local community. Following from his rich description of how the configuration of routes in the city structures patterns of pedestrian movement, Hillier draws our attention to the phenomenon of co-presence. Certain moments in space afford rest, and become meeting points, or efficient movement and become key routes through an area, bringing residents or others regularly passing through into repeated physical co-presence. Although individuals in co-presence may not display any overt forms of communication, nearness is "a "psychological resource" and a "social fact", because "co-presence is the primitive form of our awareness of others" (Hillier 2004, p. 141). So

the presence of other bodies communicates to us even if the subjectivities they house do not reveal themselves discursively. This unfocused form of interpersonal communication, repeated throughout time because of the movement habits formed through spatial configuration, leads to a mutual awareness that does not require inter-subjective disclosure. It is actually more like what Richard Sennett describes as "public man" (Sennett, 2002) than it is a "community" in which personal ties offer mutual support. However, this mutual awareness is, according to Hillier, the "raw material for community" (Hillier 2004, p. 141), and because of the potential of these as-yet invisible associations to become activated through direct social interaction, Hillier describes this pattern of co-presence as a "virtual community". In his reading it is very much a spatial idea. In a given neighbourhood, for example, the virtual community consists of "people of different categories and using space for different purposes; for example, inhabitants and strangers, men and women, adults and children, and so on" (ibid.). Any individual using this space has the possibility to build an understanding of who their community would be if they were to activate potential associations with others in everyday spatial co-presence. Even if they do not do so, the perceived quality of this inactivated *virtual* community is a psychological reality that impacts upon things like sense of safety and belonging.

There are shades of definition within the notion of the virtual, then, that offer more nuanced descriptions of what it could mean to use media to communicate in and about a neighbourhood. If the public for hyperlocal media is a collectivity of people using a place-specific media outlet, it could be described as being organized around the purpose of discussing the topic of a geographical place and existing entirely for the purpose of being the setting in which that place can be discussed, regardless of where the individuals composing that community actually are at any given moment. In this sense it is a classic virtual community. However, it is potentially also a setting in which 'neighbours', understood as residents and users of a neighbourhood, could become aware of one another (albeit one another's mediated self-presentations in the form of social media profiles) as they share the communication platform created by the comments section of a blog or by being retweeted by a hyperlocal Twitter feed. Hyperlocal media could perhaps create the conditions for mediated co-presence and mutual awareness without direct communication, making it virtual in Hillier's sense too. This dual potential will be illustrated in chapter 4 and complicated even further, with interrelations between these two kinds of virtuality, in experience of informants of this research in chapter 5. The tension between definitions of community and public will also be referred to as tendencies within communication practices. In the conceptualisations referred to here they have sometimes been used interchangeably –

virtual communities being something similar to reading publics – but the position I will take in this work is something closer to that of Sennett and Arendt, whose polemical takes on community posit it as something quite different from, and even in opposition to, the public.

Hillier, then, gives us an account of what it is to be in public and how the immaterial form of society is formed partly from the virtual links between individuals at the scale of the lifeworld. Implicitly, this affirms Erving Goffman's model of public communication, and specifically what he describes as "unfocused communication" gleaned by chance and in passing from non-linguistic (i.e. unwritten and unspoken) sources without the mutual cooperation required for a sustained, focused interpersonal communicative transaction (Goffman 1966, 24). Public space is rich with these non-discursive but highly social sources of information: sound; bodily gestures and physical attributes; artefacts of design like vehicles, clothing and urban elements. This is not to mention the many kinds of discursive, or written forms of environmental information contained in signage and other spatially-embedded forms of media. For Erving Goffman, *all* social relations are communicative relations, and if this is the case it is nonsensical to make a sharp distinction between communication and unmediated co-presence in space. He offers several paradigms that are extremely helpful in breaking down theoretical boundaries between media and the urban. The first is *civil inattention.* Given that no individual is able to stop or "switch off" their transmitting of nonverbal information in public, mutual attention between strangers must be regulated. Privacy, anonymity, and civility in public space are maintained by a polite avoidance of the communicative act of looking at one another. In other words, individuals are expected to actually limit the amount of information they receive about others through minute but highly performative gestures such as averting direct eye-to-eye contact and minimizing the time a stranger can be within their gaze. This leads on to Goffman's notion of *exposed* and *opening* positions*.* Certain spatial or physical conditions – navigating a narrow space, being in physical need, or sharing a small spatial setting like a bus stop for an extended period – can place one or both parties open to focused communication. Sometimes, according to Goffman, where the conditions of a spatial setting make civil inattention impossible to uphold, newspapers and magazines allow us to "carry around a screen that can be raised at any time to give ourselves and others an excuse for not initiating contact" (Goffman, 1966, 132). Of course now the word screen becomes literal, as phones and tablets become our communicative shields, but the concept remains that involvement in one form of communication – mediated – has long signalled lack of availability for another – face-to-face. Goffman extends his account of communication to built form, describing physical and virtual *communication boundaries* that structure how

participation, attention, and focus are distributed. Architectural boundaries such as walls have the greatest social weight: whilst they may not be entirely soundproof they are symbolic of privacy and therefore overhearing across the boundary they form is taboo. A seminar room, for example, forms a single communication setting, within in which all individuals are either *participants* or *bystanders* to the same communication and a protocol is in place requiring undivided attention. In a restaurant, on the other hand, furniture such as tables or booths form more weakly-bounded communication settings with acoustic and visual overlap, allowing attention to be divided between the focus of the conversation around the table and the background information of voices, behaviours, and dress. Arguing for the importance of location in a "networked world", Gordon and de Souza e Silva invoke Goffman's concepts and make them highly relevant in conceptualising mediated communication in space. Communication situations are now understood to be larger than the physical or spatial unit described, but still partially involve them, and the same complex balance of dominant and subordinate involvements must be negotiated in using communication media. There are different values around a social 'check-in' that intensifies a situation by communicating it, and an involvement unrelated to the situation that detracts from the quality of face to face contact (Gordon and de Souza e Silva, 2011, pp. 92-93). Language drawn from Goffman, therefore, will be used throughout this work: the notions of the communication setting with degrees of boundedness, protocols for attention, and the potential for creating opening and exposed positions, could all be used to describe mediated public communication practices in a way that emphasises their continuity with the communicative modes of public space.

2.6. Placing Publics

With a richer definition of the virtual and its spatiality in mind, John Law's theories around issue framing can be expanded upon to propose a conceptual background for geographically *placing* hyperlocal publics that will be illustrated cartographically later. Previously it was suggested that 'the public' is not a stable entity but that multiple overlapping publics form around different issues as they are framed in media as a focus for common interest, and indeed can disperse again as that issue loses traction. Law's example of Gross Domestic Product as a framing of the many processes making up a national economy as an amalgamated whole, points to the workings of issue framing at a national scale. Whilst it is not aspatial, the public that forms around this issue is spatially dispersed enough that it is beyond the immediate daily lifeworld of any one of its members, and thus necessarily inhabits the disembodied public sphere of national media. It is a transpatial public that cannot have an unmediated experience of itself as bodies in space, as it is too large to gather at

human scale. Furthermore, many national issues are not embedded in place but distributed in social and political systems beyond the lifeworld. GDP cannot be pointed to in a specific location but is in a sense contained by the geographic boundaries of the nation as a spatial entity. Spatially embedded issues, and particularly changes to the built environment through urban planning or property development, can be pointed to in specific locations. Unless it is an issue of national significance (see Yaneva (2013) for a discussion of the Welsh Opera House as a national, spatially-embedded planning controversy) the issue public for a built environment issue would most likely one that is specific to a locality, like the neighbourhood within which the development is located.

Given the unfocused and unsustained nature of communication in public space, how does a physical process become framed as an issue? The materiality of change, even when encountered immediately in urban space, does not necessarily communicate a broad enough spectrum of information to establish itself as a cause for common interest of concern: it does not make explicit why, how, by whom, with what funds, and so on, change is being made. This information cannot be communicated non-discursively, through the symbolic or environmental cues that according to Goffman are characteristic of public space, but must be mediated in linguistic form. In the UK planning system, proposed changes to the built environment are mediated in public space in the surprisingly non-technological form of paper-based notices displayed near the location of change, inviting potential members of an issue public for this change to lodge objections. Dan Hill discusses the archaic nature of this form of paper-based interface in an incisive blog post (Hill, 2015), characterizing it as a "token gesture", "geared around a negative impulse" and "effectively invisible". In local media, as we will see, planning issues can be richly described both in fact and opinion, with discussion of plans, funding and potential implications. If this local media is internet-based it has unlimited potential for circulation and can be accessed from a portable device, meaning it could even be used in the location of the issue. The salient point here is this: even when an issue is located at a specific point in space, the information conveyed by that space is not necessarily sufficient to form a public for that issue, whereas media that are transpatial and not embedded materially in space may be better at framing physical space in the terms necessary for the formation of common public interest.

There is also a paradox: even if an issue exists materially at a specific place, and many members of the public for that issue may even be co-present simultaneously in that place, their connection as fellow members of that issue public does not necessarily materialize in that place. Once again, we could say that they are a virtual public in more ways than one. Residents of a neighbourhood concerned about a particular new

development they have read about in the local media become a virtual public formed around interest in that issue, and due to their shared use of the space of the neighbourhood are also part of the virtual 'community' (to use Hillier's terminology) of unrealized contact in public space. According to John Law, issue publics do not simply materialize in place, but are brought together in specific instances of purposive gathering when mediated commonality is not enough to enact change over an issue, in what he calls "congregations", which "gather together in particular (though not always geographical) locations because they believe, correctly or otherwise, that they share commitments, enthusiasms, or sets of concerns" (Law et al., 2014). The ambient, non-verbal forms of interpersonal communication that characterize the public realm are simply not sufficient to engender this belief in shared concern. Media of various forms are required to translate bodies sharing space into publics, and subsequently into affective congregations able to act in concert. Interaction in the spatial public realm is not a sufficient description of the public sphere. This proposition, essentially suggesting that media have a stronger public character than what we call public space in the city, is challenging to the discourse of built environment design, but has also been forwarded by Ash Amin, who suggests that the public sphere is not just a place of gathering but an assemblage of institutions, technologies and individual actors as well as communicative transactions, of which public space forms a partial and possibly minor part (Amin, 2008).

Melvin Webber's earlier work offers a way to think about this in more specifically spatial terms that offer a way towards a methodology for placing issue publics. Describing the acceleration of the dissociation of social communication and geographical proximity he argues that "social intercourse, which has never respected physical boundaries anyway, is increasingly able to ignore them" (Webber 1963, 204). As such he argued that urbanity – both spatially and socially defined – should no longer be sought in the visual symbols of architecture, congregation in space and concentrated physical diversity but was instead contained in a complex system of mediated exchanges not necessarily immediately visible. The "quintessence of urbanization is not population density or agglomeration but specialization" (Webber 1963, 208). With professional specialization comes increased specialization of interest and a form of community that Wirth calls the "limited-interest fraternity": a homogeneous group so specified in its characteristics and few in individuals that fulfil those characteristics it must, to sustain itself, become a global community carried out through communication, or what we have called a "virtual community" (notwithstanding my own preference for the term *virtual public*). The spatial range of a community, he argued, was directly proportional to its level of specialization of interest. In contrast, the "true community" is a "multi-interest

group, somewhat heterogeneous, whose unity comes from interdependencies that arise among groups when they pursue their various group interests *at a common place"* (Webber, 1964, p. 110). In this kind of community, the common interest is always in "lowering the cost" (Webber, 1964, p. 111) of living in proximity, through improving shared services and developing normative values, for example. He offers language to describe the spatial scales occupied by these different forms of community, and by proxy these different sets of communication practice. The "region" is the fixed Euclidean territory occupied by the urban entity, whilst the "realm" is a shifting space occupied by members of interest communities communicating across space. The "spatial extent of each realm is ambiguous, shifting instantaneously as participants in the realm's many interest-communities make new contacts, trade with different customers, socialize with different friends, or read different publications" (Webber, 1964, p. 116). So to recombine this with John Law's issue publics and the communication theories around it, the neighbourhood is a relatively fixed region of Euclidean space whereas the realm is the malleable spatial territory within which an interest group, which we have seen to also be a public, operates through a public sphere of communication which is not non-spatial but transpatial.

Though this framework for the overlapping spaces of communication and urbanity is helpful, his lament for the eroding of "true community" by global interest communities "without propinquity", carried out through communication, is arguably along the lines of the romanticisation of pre-technological community that has been brought into question earlier in this chapter. Barry Wellman's survey and critique of thinking on the nature of community in light of communication technology groups such pessimistic theorisations of the supposed spatial breakdown of social relations, the impersonality of specialised, rational, interest-based associations and so on – as a set of theories seeing community as "lost" (Wellman, 1979, p. 1204). In response to this so-called loss, another set of critiques re-asserted the continuing communicative value of neighbourhoods through the new planning orthodoxy of the "urban village" (the ideology of which is still powerful in urban planning now) based on studies revealing evidence of dense clusters of social ties amongst low-income or ethnic-minority ghettos in London and New York in the 1950s and 1960s (Gans, 1962; Young and Willmott, 1957): "community saved" as Wellman puts it. Wellman usefully critiques *both* the "community lost" and "community saved" schools of thought for their assumption that, whether or not it has ceased to do so, whatever it is that can be called 'community' *ought* to be something contained within the geographical boundaries of an identifiable urban neighbourhood. Here, then, what is referred to as *geographical community* is understood to be an orthodox idea of the spatial distribution of social relations, and therefore communication, holding that

proximally grouped relations are the most 'authentic'. Wellman offered a new (at the time) *network* paradigm, that strongly persists within sociology and is foundational in studies of urban communications, in which community is not lost or saved but *liberated* from the confines of place (Wellman, 1979). Primary social ties – the supportive, personal relations that characterize community rather than public – were according to Wellman "not now organized into densely knit, tightly bounded solidarities" that are "institutionally complete" (1979, p. 1206). Instead each individual could be linked to "multiple social networks" based around work, family, interest and to a certain degree locality, which becomes a weak factor organizing sociality rather than its primary frame. Wellman later referred to this new social paradigm as "networked individualism" (Wellman 2001b; Wellman 2001a; et al), and this concept gives rise to several important ideas in Wellman's subsequent work about the new spatial organization of urban communication in the late 20th century. Firstly, that with the help of transport and communication technologies, the 'local' expands beyond the walkable neighbourhood and becomes stretched across the whole city or wider metropolitan area. Wellman sees this as proactive attempt, on behalf of the "contemporary urbanite" to "gain access to and to control system resources" (Wellman, 1979, p. 1227). Secondly, and later in his work, Wellman noted, with Hampton, that while mechanized travel and the telephone had previously loosened the reliance of community on proximity, they both had costs that rose with distance whilst the internet, when it arrived, flattened the cost of communication across any spatial scale (Hampton and Wellman, 2002, pp. 348–349). Finally, observing the way this new 'distanceless' technology was employed by residents of a newly internet-connected suburb of Toronto in the famous *Netville* studies, they noted the surprising (at the time at least) effect of *greater* involvement in local civic life by those that took up use of the internet, as well as the ability to upkeep social connections and information awareness more globally. They proposed the term "glocalization" - "being simultaneously globally connected and locally involved" (Hampton and Wellman, 2003, p. 306) – to describe this overlapping of communicative scales that countered most of the earlier predictions of the internet's anti-urban implications. Glocalization is a framework for understanding the embeddedness of spatially localized contact within a worldwide system of communication:

"The combination of face-to-face, phone and e-mail communication means that the role of cities as interaction maximisers remains, in modified form. Cities continue to foster face-to-face contact and much contact is local. There is no global village. Rather, there is glocalization, with extensive local contact joined by amplified long-distance connectivity. The city is no longer the boundary—if it ever was: it is the hub."
(Wellman et al., 2010, p. 2781)

The intensification of proximal-yet-mediated communication was at the turn of the 21st century an almost completely unexpected outcome of information transmission's conquering of geography, and, as will hopefully be shown, the continuation of this phenomenon in contemporary communication formats as hyperlocal media remains a valuable basis for a detailed and observational description of the continued interconnectedness of place and communication. This phenomenon was, however, *only almost* unexpected. Castells, in his work in the 1980s, had sketched out an alternative future scenario as a counterpoint to his analysis of the informational city, in which communities could "construct an alternative space of flows on the basis of the space of places" (Castells, 1989, p. 353). In other words, rather than resisting flows through the assertion of fixed and parochial place-based identities (as has often been the local response to, for example, the incursion of global brands into local markets) he recommends adapting the mechanisms of communication flow for use at a local level. Geographical communities, he argued, should build on and preserve their historic identities through local expressions of collective memory (see the notion of neighbourhood storytelling later in this chapter) and simultaneously create a network of information-sharing and decision making within geographically-defined locales but also in connection and alliance with other organized, self-identified communities nearby. His specific solutions for this include "citizen data banks", "community-based multimedia centres" and "interactive communication systems": which we could translate into popular contemporary parlance as "open data', "wired libraries" and "social media". These kinds of phenomena have been linked with a re-urbanisation of technology in analytical terms (it is hopefully clear now that in practical terms it never was anti-urban), that provides a more immediate pre-history to the emergence of hyperlocal media.

In summary, then, the social collectivities formed through the witnessing of hyperlocal media are thought of as publics, that form around issues that can be located in space. An issue public may be virtual – both in terms of being formed through communication and/or as a set of potential links – but *also* specific to a spatial realm formed by the extent of the locations in space of the individuals forming that public. These publics are not the same as communities, but community could be observable as a network of more stable, sustained, direct connections between people that are focused in place but not fully constrained by it.

2.7. Cities and the Internet

Whilst part of my aim is to build hyperlocal media into a broad contextual and historical framework of communication in cities, it is specific to the set of technologies we call the internet and therefore it is necessary to hone in on some of the theory dealing with the internet and its 'impact' on cities. During the last 10-15 years of the 20th century, or the first 10-15 years of the widely available internet, most theoretical discourse focused on its potential for facilitating the large-scale restructuring of global society through economic change (Cairncross, 2001), the physical remoulding of traditional urban forms such as the city-hinterland hierarchy (Graham and Marvin 1996; Mitchell 1996) and more ontological effects such as the negating of spatial distance. In the last 15 years more accounts have attempted to place technology use in a socio-spatial context. Issues are raised around ways that technologies, communication behaviours, and mediated social forms are contingent upon the physical spaces they interact with. Conversely a growing field focuses on ways that networked ICTs can enhance spaces (usually urban spaces), whether from the point of view of individual human experience, social forms such as democracy and civic cooperation or the technical operation of urban transport, energy and waste systems. Arguably this shift in theoretical discourse is related in large part to the mobilization of the internet through smartphone use, breaking down the late 20th century model of fixed points of internet access in homes and offices. Inevitably the spatial flexibility we now have in using ICTs opens much greater possibilities and complexity in the interaction between the (almost entirely blurred, as argued by Jürgenson (2012)) realms of the "online" and "offline". From here we will turn to some of the ways in which these ideas have manifested, before focusing specifically in the next chapter on hyperlocal media as one instance of this wider tendency.

Alongside the growth of the 'network' as the dominant way of conceptualising electronic communication technologies (optical telegraphs and postal systems also formed networks, but the term has achieved ascendance as a byword for the internet) sociological theory moved away from Tonnies' understanding of community as an ideologically coherent spatial and sociological group (Tonnies 1955), reframing it in network terms as a web of individuals engaged in ties of varying degrees of strength and upheld through various types of communication. This shift in conceptualisations of society was already underway before the internet became mainstream but has certainly been amplified by the structure of these particular technologies. In this framework, no single community can be drawn out geographically or socially, and as a result it has been proposed the individual subject forms the locus from which point a personal community or "egonetwork" can be traced (Kavanaugh et al., 2005). This is reflected in

the term "networked individualism" (Wellman et al., 2002) which is used by Barry Wellman to describe the shift from group-based to network-based society that, as referred to in the previous section he was already observing, with the individual as the basic unit rather than the community or family. The notions of "offline" and "online" communities are increasingly replaced by a holistic discussion of cities (as opposed to smaller settlements where presumably social 'grouping' persist to a greater degree) as highly complex, sparse social systems consisting mainly of multiplex (i.e. consisting of several types of interaction), weak social ties based on various forms of homophily (work, residential location, sexuality, ethnicity and so on) and facilitating highly effective knowledge circulation with minimal social constraints (Neal, 2013). Whether or not this reflects reality, the thinking seems to be derived in part from some of the ideals implicit in popular social networking sites such as Twitter, that are ideologically based on high-volume social and informational exchange in a public, networked, but socially non-committal way. Indeed, the term "social network" which is popularly used to describe these specific types of communication platform is used in the sociological literature as a generic description of an individual's social milieu, with SNS (social networking sites) often being used to distinguish the internet-based manifestation of this. While terminology derived from ICTs may appear to be seeping into our understanding of communities, the reverse may also be said to be true. Pre-internet sociological terminology has been applied to studies of SNS to test the degree to which they have been moulded by what are thought of as 'traditional' (read: pre-mediated) social practices.

Attempts to explain the relationship between 'networked technology' and the 'traditional' social form of places have broadly come from two angles: firstly, from the notion that places, and their attendant social and cultural forms, become mediated or give rise to networks of communication and play a part in structuring those communications; secondly, from the notion that the social workings of places are affected by various patterns of communication technology use. Gordon and de Souza e Silva countered *aspatial* readings of the virtual by asserting that physical location fundamentally impacts the way communication technologies work (2011): the popularization of Geographic Information Systems across both business, academia and civic projects, for example, has shown that many forms of data become more useful when referenced to a point on the earth's surface (Frith, 2012); social media sites encourage us to attach a location to updates in order to provide a spatial or cultural context to the communications we make; and in a more social sense location works as a form of identity as users state their geo-cultural affiliation at whatever scale is individually relevant from nation-state or even continent to individual postcodes or

streets. Internet search engines also use location to narrow results and provide rich cultural information relevant to the user's geographical interest whether that be the current one or a chosen proxy used to understand another place. David Morley points out that "we in fact do still inhabit actual geographical locations, which have very real consequences for our possibilities of knowledge and/or action" (Morley 2007, p. 203).

More commonly, studies of communications in place look for their 'impact' on pre-existing forms, for example ways in which social practices and their spatiality are transformed through the use of technological communication. The best-known studies in this regard are those concerning "Netville", an early internet-connected suburb of Toronto, by Keith Hampton, Barry Wellman and others. Tracing the impact of the introduction of a neighbourhood email list, it was found that those adopting this form of communication were able to increase their participation in local civic and organizational life, extended their localized network of weak ties and therefore strengthen their access to the benefits of social capital in comparison to their "unwired" neighbours (Hampton and Wellman, 2003). This intensification of local involvement alongside even greater access to information from across the globe and the easier upkeep of existing strong (mainly family) ties across large distances gives rise to the term "glocalization" (ibid., p. 306). Hampton makes further, quite strident claims for the positively transformative effects of the internet in a separate study comparing the adoption by individual neighbourhoods of a nationwide (USA) online platform facilitating similar localized email distribution. He found evidence that neighbourhoods with "ecological predisposition" to disadvantage (through poor opportunities in employment, education, health and so on) and lack of "collective efficacy" (the ability to identify and achieve shared aims) were able to overcome these conditions and communicate coherently and self-organize. This was, he argues, due to the relatively low economic, social, spatial and temporal costs associated with networked internet-mediated communications in comparison to, say, one-to-one telephone communications or face-to-face community meetings that require a surplus of available time and the existence of concrete community meeting spaces (Hampton, 2010). The result of this, according to Hampton, was the reduction of disparity in social conditions between neighbourhoods contrasting economically, at least amongst those that adopted this platform. So socio-geographical conditions were apparently partially negated due to the penetration of internet-based communication and specifically email in this context. The flipside of this positive effect, though, has also been identified. Communities whose members are for some reason unable to make use of these tools, for example because of the uneven geographical distribution of communication infrastructure, have their ecological predisposition to disadvantage amplified by lack of access to the internet.

"Offline communities" are marginalized and services such as banking and community meeting space become spatially decentralized within settlements due to the unfair expectation of universal internet access (Shin and Shin, 2012). The use of smartphone-based mapping applications, which are overlaid with socio-cultural information such as the location of businesses and services, masquerade as value neutral but in fact are selectively filtered (Frith, 2012). Users can enact differing levels of control over the range of people and places they come into contact with, depending upon their capability in using the internet on a smartphone to retrieve information about their surroundings in situ. Thus, argues Frith, otherwise unpredictable encounters with people and places in public space are subtly filtered according to individual interest.

However, a two-sided affective relationship between technology and the "real" has been convincingly debunked in theoretical terms as technological determinism (Graham and Marvin 1996, p. 111) or digital dualism (Jürgenson, 2012) and convincingly replaced by chains of "actors" both human and non-human (Latour, 1992) (which I will return to in more detail in chapter 6). Following these critiques, it is insufficient to look for the 'impact' of the physical on the virtual, or vice versa. The most nuanced accounts suggest the spatiality and the communication practices of urban societies have been in a co-developmental feedback loop: new communication needs arise from the changing relationships between spatial units (such as workplaces and homes) brought about by transport and social change; technologies succeed commercially by answering these needs; new communication practices develop through these technologies; and further changes in space-time coordination are supported (see Castells, 1989, pp. 136-142 for a compelling description of this process). For example Offner argues that rather than flattening distance and difference across space, communication technologies arose to answer the need for constant real-time communication between a growing proliferation of new and distinct places, which he understood as the sub-divided spatial units created to house the many hyper-specialist working practices of the advanced division of labour in late capitalism (Offner, 1996). Or as Susan Kent has put it, the increasingly segmented use of space that emerges as a society become "more socio-politically complex" (Kent, 1990, p. 128) which must be serviced by increasingly complex communication technologies. More recently, the availability of worldwide data has shown that physical travel has increased alongside, rather than been supplanted by, the growth of international communication flows: business people in constant contact with global counterparts value highly the social effect of "being there" in person to establish relationships (Hagel, 2012). At the other end of the social spectrum, riots and protests in London in 2011 and across the Arab world in 2012 were attributed to social media, but according to Dan Hill were truly

hybrid phenomena. The seeds of activism, he argues, are sown through online communications but manifested in traditional urban gathering spaces such as Mediterranean squares and plazas or the high streets of British cities (D. Hill, 2013). The interpretation of data in this research will attempt to follow such accounts and bear in mind Keith Hampton's warning against reliance on an "online and global" vs "offline and local" conceptual dichotomy (Hampton et al., 2011, p. 1032), by looking for evidence of the co-constitution of the virtual public sphere and the spatial public realm in the case study neighbourhood.

2.8. Ideologies of Urban Communications

Martijn de Waal has argued for the importance of paying attention to the imaginaries and ideals on the basis of which both urban space and communication technologies are built, and in doing so provides a valuable way of observing this co-constitution. For example, he gives the example of "locative media art" that attempts to reclaim communication technologies as tools for intensified experience of diverse urban sociality in situ, derived from the imaginary of the flâneur as an ideological orientation towards the city, valuing serendipity and the immediate. Such an imaginary is in opposition to industrialised uses of technology for content filtering and private personalised experience (de Waal, 2011, p. 6) that relate also to the kind of privatised and protected urban experience against which the flâneur railed. Beyond specific examples, it is extremely helpful to be able to read widely-accepted social phenomena as "remediated" and subtly re-formed through their playing out via communication technologies, rather than as passively subject to the impact of technology as an external social force. Similarly, whereas it is a fallacy to ask how technology impacts the city – two systemic phenomena which do not have agency without human operators – we can assess their interplay if we acknowledge human agency as the medium: the production and use of these systems may change over time as ideals and social practices are mediated and remediated.

If design can be thought of as a reality-making process built around the belief in a certain problem and an ideal solution to that problem, then it is no surprise design practices around urban communications are rife with competing imaginaries of what the city is and should be for. The design of new urban communication technologies, broadly termed "smart city" technologies, is spearheaded by commercial players – Cisco, Intel, IBM and Siemens – rather than by architecture or urban design companies, as noted by Adam Greenfield in his comprehensive critique of the field (Greenfield, 2013), and therefore based around urban imaginaries that serve the aims of those players. Cisco's "Smart + Connected Communities" group of solutions aims to

"help transform physical communities into connected communities", for example, with "intelligent networking capabilities to bring together people, services, community assets, and information to help community leaders address … world challenges".[7] The imaginary here is that communities pre-exist the means of communication, and that simply through connectivity they will automatically be more able to address "challenges", with little discussion of what those challenges may be. Looking further into these claims, we find out that the technology on offer does not in fact aim to put individuals in touch with one another. Instead residents of new developments equipped with Cisco's solutions are offered "luxury" in the shape of remotely controlled home devices (climate, entertainment and security) and remote access to a "community of services" including healthcare, virtual tutoring, energy monitoring and a personal concierge to "enhance and support the way they live" (*Cisco Smart+Connected Residential Solution*, 2012). Whilst in a literal sense networks of people in possession of these technologies are more "connected" (in terms of literal network connections to devices) the devices and data connections involved are proprietary and monetised, with encoded ideas about who should connected to what, where, and how. Cisco's solutions for digital government, for example, specifically suggest placing electronic point of delivery devices in remote, decentralised locations allowing for individual interface with government services (Cisco Smart+Connected Communities, n.d.). Connections here are understood as something to be made vertically with the mechanisms of government, in private settings, disfavouring public communication in which individual citizens engage laterally with one another. The aim in this work is not to criticise this commercial venture per se but to acknowledge the imaginary of networked connection as a social ideal in and of itself, and that this language is easily re-absorbed into scholarly accounts via the more future-oriented academic realms of design research. This imaginary, and the acknowledgment of it, is critical for research into hyperlocal media, which inevitably is formed partially of networks and connections.

A key difference between hyperlocal media as a communication practice, and the design of networked communication interfaces as part of a city-building process by Cisco et al., is that the former is emergent whereas the latter is planned, and arguably "over-specified" (Greenfield, 2013, p. 46). Moore's Law of technological advancement upholds that the number of transistors on a new circuit doubles every two years, meaning progress in this sense is exponential. The built-in sensors, interfaces and wired connections that Cisco and others propose to design-in to new urban developments from scratch will require constant, disruptive upgrading to keep up to

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[7] See http://www.cisco.com/web/strategy/smart_connected_communities.html

date with more transitory mobile devices and even more so with the immateriality of software and web-based social/informational applications. Dan Hill notes that technology changes much faster than cities: tools that are embedded concretely into space quickly become useless to individuals co-opting technology for their own aims and raise the ugly possibility of coercion placed on city governance by technology manufacturers (D. Hill, 2013). Three cities across the world, all at different stages of development are the first to be planned from scratch with Smart City technologies embedded from the outset: *New Songdo* in South Korea, *Masdar in* the UAE and *PlanIT Valley* in Portugal (the latter currently a wholly theoretical prospect). Whilst they can work as showcases for futuristic technologies, all three of these have been criticised in the terms of urbanism for an out-dated "rational comprehensive planning model" (Shin and Shin, 2012, p. 34): a heavily top-down approach to urban planning that functionally delineates buildings and neighbourhoods, but now also communication infrastructures. By designing in functionalities such as entertainment districts, business districts and so on, the possibility for adaptation to socio-spatial changes is designed out, just as changes in communication pattern are so by deeply-embedded technologies. Greenfield notes that "Songdo's masterplan replicates the formal order of a midsize American city of the mid-twentieth century" (Greenfield, 2013, p. 48): exactly those cities that are currently undergoing upheavals to attempt to reduce car dependency and social segregation.

Relatively few people, however, will live in these purpose-built Smart Cities or even any kind of city with the fully integrated systems of Masdar or Songdo. At the time of writing only one pre-existing city, Rio de Janeiro, houses a fully integrated "smart" control room unifying all available data sources. To realise this vision in the many complex, layered and messy metropolises around the world requires retro-fitting: an "extremely complex task for city authorities" (Green, 2011). However the "e-topian" (Shin and Shin, 2012) vision that they present highlights some important characteristics of hyperlocal media. The blogging and social media platforms being co-opted as neighbourhood informational networks were not specifically designed for this use, nor are they based on specified physical infrastructures in the city beyond the generic communication infrastructure supporting the internet. Ideally, they seem to represent a clear example of the fact that people, given a range of flexible and cheap or freely-accessible tools, will find ways to connect and share information with those around them for their own individual or civic goals. Just as Jane Jacobs argued for the retention of cheap, adaptable space as a basis for mixed and vibrant communities (Jacobs, 1961), a similar ideology seems pertinent for the provision of tools for networking and communication.

Citizen-led versions of the smart city paradigm, termed "smart citizens", with ideals more embedded in social rather than economic aims, are based in design thinking rather than emergent uses of existing platforms but also demonstrate imaginaries that could easily be taken for granted within research into hyperlocal media. Dan Hill's smart citizens manifesto follows the smart city criticisms mentioned above with a call to "bind the energy and dynamics of social media … to active government" (Hill, 2013). Rather than purchasing inflexible and proprietary systems for data collection from technology providers, Hill urges governments to allow space for crowd-based civic activity and "take such disruptive innovations and productively absorb them into a resilient system that smoothes social inequalities and generates broader access" (Hill, 2013). He claims that "all around us, in cities worldwide, we see evidence of smart citizens—that is, citizens using social media and related technologies to organise and act". This kind imaginary is echoed elsewhere too. According to a report by the Government Office for Science, communication networks will allow people to "bypass official channels and bring about a change in their city" (Moir et al., 2014, p. 22). Adam Greenfield, in his smart city critique, suggests they should allow "citizens and their communities to determine the conditions of their own existence" (Greenfield, 2013). The creators of Smart Citizen, a platform for citizen-led urban data creation, aims as high as "the collective construction of the city for its own inhabitants" (Diez and Posada, 2013) on the basis of peer-to-peer mediated networks. These ideologies go some way to explaining why communication technologies have become seen in popular media as the bringer of a revival of community (Small, 2012) and in academic discourse as a "21st century breeding ground for civic engagement" (Metzgar et al., 2011, p. 3). All these accounts make a logical leap from the possibility of communication to the inevitable use of that communication for political means, via the imaginary that all "citizens" are (or should be) political agents rather than passive inhabitants of the city. Again, the goal is not to argue against such aims for political action through communication technology, but rather to question the sufficiency of the underlying imaginary and suggest the importance of observation for knowing how and why people form communication networks in cities. Whether from the point of view of smart cities or smart citizens, technological propositions are based on a similar assumption about the relationship of technological design to everyday action: that communication technology is fundamentally *new* and therefore able to disrupt and create ways of communicating that are *instrumental* and have a purpose. As suggested, the design process is based on the identification of a problem (or opportunity, which is essentially the same in this framework), the imagining of a way to deal with that problem rooted in certain social, economic and political ideals, and the implementation of a new material way of doing

things to try to address that problem. In urban design, this is embodied in the tension between strategic planning that is imposed upon urban development in order to try to create certain social and economic conditions, and the organic development of unplanned form that aggregates from non-strategic individual acts of building to serve pre-existing social and economic conditions. In this light, new communication infrastructures, such as the internet, have been seen as an opportunity for doing many new things in cities, and in many cases have been. However, what David Morley calls the "phatic" role of communication (Morley, 2007, p. 255) – the symbolic dimension of the sending and receiving of messages that transcends their content – has not been paid sufficient attention within the inevitably heavily design-influenced and therefore goal-oriented urban discourse. As a pragmatic, emergent, and non-designed use of existing communication platforms, as we will see, hyperlocal media offers the opportunity to observe such a dimension.

Sandra Ball-Rokeach et al, in research on neighbourhood communication practices in Los Angeles, have outlined a 'communication infrastructure theory (CIT) (Kim and Ball-Rokeach, 2006) that provides a rich methodological and theoretical framework for doing so, and one that incorporates many elements of what has been covered in this chapter.[8] In any given locality, CIT aims to reveal an "ecology" of communication settings – physical spaces, events gathering neighbours together in space and time, and various forms of local media – through interviews with key community members, mapping of the built environment and a census of media types. These settings, collectively referred to as a "communication action context" support a "neighbourhood storytelling network" of everyday conversations disseminated through people, media and local organisations. Where Law has proposed that publics can convene around issues framed in media, CIT research has observed this process at work in forming places in Los Angeles, "long advertised as a placeless realm par excellence" (Agnew 2002, xiii).

"The key element [in neighbourhood storytelling] is that the neighbourhood is the referent. They are stories about 'us' in 'this geographical space'. Such stories are the building blocks of the ability to 'imagine' an area as a community"
(Kim and Ball-Rokeach 2006, 178)

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[8] Coming across this theory part way through the research actually transformed and disrupted its assumptions significantly. As will be recounted later, the frame of data collection had to be expanded to incorporate the ecological understanding of local media in a way that caused problems for research consistency but hopefully a more solid theoretical outcome.

This proposition offers an extremely useful way to understand hyperlocal media and its co-constitution with spatial territory. Whereas Dan Hill, for example, takes an instrumental view suggesting (as mentioned above) that the specific political content of mediated discussions about the city should be re-absorbed by governing bodies as new policy and have a key role in driving behavioural and social change, storytelling emphasises instead the phatic value of these conversations. To emphasise the phatic is to suggest that the structure of a message and the means by which it is communicated have greater importance than its content. So in this context, the specific content of a neighbourhood story, and even its degree of actual truthfulness, is of less importance than several aspects of the way in which it is told. It affirms common knowledge of a geographical region between the "teller" and the "told", be they individuals, organisations or media outlets. Taking Tuan's definition of place as a "field of care" (Tuan 1977, p. 162), storytelling with places as shared referents allows a physically unbounded region to be recognised as a place and a social container. It allows the communication setting in which the telling takes place, be that a café, a local newspaper, or a play park to be established as a communication asset with a greater community value than the instrumental service it provides. This latter effect has particular importance when thinking about how the health of local communication is tied up with the physical structure of the built environment itself. Indeed, the proposed methodology of CIT aims to evaluate the health of a communication infrastructure and its subsequent ability to assist a community in "addressing outside forces like globalization, new communication technologies and new population dynamics" (Kim and Ball-Rokeach 2006, p. 175). Following this assessment, it identifies specific ways in which the infrastructures unveiled can be better utilised or strengthened, offering more people connections to communication resources. Both social and spatial dynamics could be seen as constraints on the ability to access a communication action context: fear of safety in public space, lack of shared meeting spaces, language barriers and significant local differences in levels of education. Ball-Rokeach identifies peer-to-peer mediated communication platforms, of which Twitter and Facebook are the key examples, as facilitators of this context. It is also important to note that CIT does not assume that neighbourhoods and communication settings have clear boundaries. Varying scales of storytelling network are intertwined: the macro scale of mainstream media supporting national identities; meso scale urban regional media; and micro scale interpersonal interactions. The ideal system, it is argued, is cosmopolitan rather than parochial, in that macro-scale referents are imagined as meaningfully connected to local referents (Ball-Rokeach, Kim, and Matei 2001).

2.9. A Theoretical Framework for Urban Communications

Instead of a limited literature review for the study of hyperlocal media from a specific disciplinary viewpoint, the intentionally broad and generalist theoretical survey in this chapter is intended to serve as an introduction to the complex ontological junctures between people, urban form, and information flows that constitute the issue of urban communication. This final section of the chapter gathers together these diverse influences into a theoretical framework through which the data gathered in this research has been analysed. This framework does not represent a position that was taken before the research began. It has been developed iteratively through recourse to theory at various points in the data collection to find concepts and methods that could incorporate unforeseen phenomena. In the more specific introduction to hyperlocal media in chapter 3, further theories will be drawn on to explain specific methodologies employed.

At various points in the recent past, and particularly around the explosion of the internet in the late 20th century, we have seen that some urban discourse has seen communication technology as a threat to, or a liberation from, the physical reality of the city as a generator of social interface through proximity. The argument presented here, based so far on a historical approach, is that cities have also always been spaces in which media are concentrated and produced, and that media have been essential to setting up social interfaces in the spatial public realm, with revered spatial gathering points such as the Roman forum and Viennese coffee house being places in which debate has been triangulated by a shared focus on mediated information. By this shared focus on information, and framed issues, bodies sharing a space are transformed into publics. Recognising the importance of mediation through pre-digital means and the continuity and co-existence of new and older technologies, the term *mediated* will be used throughout to describe any form of technological communication rather than the more common *digital* that has often come to stand in for contemporary technology. The suggestion is that urban design and its related scholarship have tended to take bodily co-presence as a sufficient or ideal basis for social interface, playing down the aspect of Habermas' theory of the public sphere that asserts that publicness is in fact fully a condition brought about through mediated communication. Because of this intersection of mediated communication, which by its nature always involves some kind of bodily absence and the likelihood of encounter with strangers, and urban centres, the suggestion of community as a relevant way of understanding urban society at large has been criticised. Though definitions of community have been updated since Tonnies' *Gemeinschaft*, and particularly through the idea of virtual community, even this form will be largely rejected here in favour of something more like

a virtual public. Community, following Hannah Arendt's definition that contrasts it with the public, is seen to be a feature of relatively stable social intercourse within spatial groupings. The public, on the other hand, is taken to be a form of social relation carried out largely via media, by its nature transpatial and as such able also to be physically co-present without becoming a community. Importantly, though, it will be argued that publics are not *non-spatial*, and as such they can be *placed* geographically, along with the issues they form around.

It has also been argued in this chapter that in various ways communication has always been key in transforming space into place, and this is to do with the ability of publics to be transpatial. The extents of certain communication networks – whether they be the broadcasting of law over the Roman Empire through messengers, the national postal systems of 18th century Europe, or the concentration of the internet in the global West – have always been closely implicated in the imagined coherence of spatial territory. Issues of economics or war, for example, enable the imaginaries of such large regions of space as single entities, whilst in large cities like LA, according to Sandra Ball-Rokeach, local stories whose content matters little enable the imaginary of 'us' – social togetherness in a specific place – within a vast urban region. Drawing from Webber, the region in Euclidean space which a place can be pointed to has been contrasted with the malleable and morphing realm within which a public or a network could be placed. This network, we have seen, emerged in the 21st century as the dominant mode for understanding society and the study of publics in a neighbourhood should clearly be based on networked associations rather than social groupings. In this mode, the individual is seen as the centre of a network (of social ties) that is not spatially bounded but concentrated locally and potentially extended globally. Nonetheless, ties remain in this form of sociology the fundamental conception of human relations. The network of ties has been adopted by design, from both an industry and an activist perspective, as an ideology on the basis of which much communication technology has been predicated, shaping it around the imaginary that such connections should be valued on their ability to create certain types of instrumental action. The analysis of evidence in this research will look also at *phatic* and *non-instrumental* modes of communication such as *storytelling*. With stories as the focus, hyperlocal media, which is an artefact of the internet, need not be taken in isolation but can be seen as part of an ecology of modes of communication that support storytelling. These frameworks represent an attempt to *place* hyperlocal media contextually and historically. In the following chapter the specific case study in this research is placed geographically, giving background to the in-depth data analysis and also suggesting on a broad scale how a blog, and its publics, might be located spatially.

3. Introducing the Case Study Area and Hyperlocal Media

This chapter 'zooms in' from the broad theoretical attempt to reframe the city in terms of communication in various ways, to look at hyperlocal media as a specific set of urban communication practices, and at the hyperlocal channel Brockley Central[9] as a specific instance of hyperlocal media. It starts with a review of the limited literature specific to hyperlocal media and neighbourhood social media research, then places the case study in the context of the area's socio-spatial characteristics and wider media use.

3.1. Researching Hyperlocal Media: methods and conceptualisations

Hyperlocal media have[10] been defined in the UK as "online news or content services pertaining to a town, village, single postcode or other small, geographically defined community" (Radcliffe, 2012), and in a US-based study as "geographically-based, community-oriented, original-news-reporting organizations indigenous to the web and intended to fill perceived gaps in coverage of an issue or region and to promote civic engagement" (Metzgar et al., 2011, p. 3). As a highly localized form of journalism emerging to fill a vacuum left by the economic decline of local print media it is relatively well documented, in accounts that evaluate its success in facilitating democracy and political engagement.[11] Within spatial disciplines such as geography, architecture, and urban studies, however, this relatively common (a figure of 42% of adults in 2013 using hyperlocal media for the area in which they live was quoted in section 1.3) use of technology is rarely brought to the fore.

Following de Waal, it was argued in the previous chapter that the design of new technologies for urban communication is based in imaginaries of the inherent value of networks, whether for economic or political gain, and of those networks as consisting of people connected directly to one another. Though hyperlocal media is not 'designed', per se, imaginaries can also be identified in the way its publishers report their motivations. A UK-wide study identified 500 hyperlocal sites actively operating in the UK and surveyed hyperlocal publishers about their activities. Unsurprisingly social media plays a crucial role; 91% of the 200 questioned in the survey use Twitter to communicate with their audiences, citing "active participation in local communities" and "enabling interaction between people at a local level" as two of the main reasons given

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[9] http://brockleycentral.blogspot.com
[10] Though *media* is technically a plural word it is in common use to denote 'the media' as a singular news industry or voice as well as in the plural to describe various kinds of social media. It will be used in both the singular and the plural for different purposes throughout this work
[11] For accounts that deal with hyperlocal media for its journalistic and political value but in a 'non-spatial' way see Dickens, Couldry, and Fotopoulou 2014, van Kerkhoven and Bakker 2014, and Barnett and Townend, 2014.

for doing so (Williams et al., 2014). However, the study also suggests that hyperlocal media is commonly used as a means of distributing online content *rather* than as a communication space in which readers were equal participants. In other words, it often operates in a *one-to-many* network, rather than the *many-to-many* mode imagined by the "smart citizens" framework as the ideal way that social media should be adopted in cities.

Figure 3.1: Screenshot of map of hyperlocal sites taken from http://localweblist.net, showing how hyperlocal sites are represented as pinpoint locations, suggesting a bias towards media practices with location as a backdrop

In the same study, Williams et al. frame hyperlocal media as a response to the decline of local newspapers, filling an informational gap left by the closure of 242 local publications in the UK between 2007 and 2011, and coinciding with unprecedented access to free online publishing formats such as blogging platforms. In a related study, hyperlocal media is defined as a "cottage industry" approach to news distribution, "offering mass communication without mass production" (Radcliffe, 2012, p. 42). Instead of smart citizens, these accounts settle for the more prosaic term "community journalists" (Williams et al., 2014, p. 13) to describe the publishers and operators of hyperlocal channels. This reference to journalism as an information-producing *industry* rather than a purely civic activity is ratified by the finding that 30% of the hyperlocal producers surveyed were found to be generating over £500 per month revenue from their activities (ibid., p. 30). Indeed, they propose that the term "hyperlocal" may even be misleading as a way to categorise the geographical reach of these media and instead see it as a metonym "describing an emergent generation of a primarily digital

community of local news producers" (ibid., p. 13) who define the main use of their site as distribution of "local news of both civic and cultural value, including news about local community groups and events, and local government issues" (ibid., p. 4). Williams et al. agree then with Metzgar et al.'s findings in the US that it is the 'digital-nativeness' of hyperlocal media, rather than just its spatial reach, that distinguishes it from newspapers and other forms of local print news. These readings frame hyperlocal media as the gathering and communication of information, native to the internet (unlike the websites of local newspapers for example, which produce local information but are pre-existed by print versions), through relatively static information-holding media like blogs as well as dynamic conversational and networked media like social networking sites. In foregrounding media practices this way, both Metzgar et al. and Williams et al. have little to say about the spatial characteristics of hyperlocal media, even wishing to play down the importance of spatial reach. Local Web List (http://localweblist.net) holds a database of active UK hyperlocal sites, based on the data collected by Williams et al. and augmented by monitored self-submission open to hyperlocal publishers. Though it uses a geographical framework for listing the sites, allowing them to be explored via a map, each is represented as a pinpoint location which does not represent its spatial extent, as seen in figure 3.1. Through the lens of media research, location is the backdrop to a set of journalistic practices characterised largely by their use of particular media, their economic value, and topics of interest. This perspective does not offer any means to represent hyperlocal media in two dimensions, as the Euclidean region of space that, according to Webber, public realms formed through communication should be seen to inhabit, for which methods will be developed through this chapter. It also leaves large gaps in knowledge around the role of proximity in forming hyperlocal networked connections, as will be explored in chapter 4, and how communication practices and protocols relate in detail to different scales and morphologies of urban space, as will be seen in chapter 6.

Other studies of hyperlocal media, though still from a media rather than spatial perspective, do offer more detailed taxonomies. Networked Neighbourhoods (http://networkedneighbourhoods.com/), a consultancy working with residents to establish neighbourhood media channels, has conducted a study that takes Brockley Central as one of three focus cases. The report is authored by Hugh Flouch, founder of Harringay Online blog, and Kevin Harris. Although its results can only be of limited use given the 'industry' perspective it does offer valuable definitions and an example of the implicit ideologies often dominant in conceptualisations of urban communication. The Networked Neighbourhoods study looks at "the ways in which people communicate online using citizen-run websites, the impact of that communication, and the

implications for local service providers" (Flouch and Harris, 2010, p. 1). It describes its three case studies, of which Brockley Central is one, as "well-established" "citizen-run" sites (ibid., p. 10). Reflecting the suggestion that the term hyperlocal captures a diversity of communication practices and relationships with space, Flouch and Harris outline a more detailed typology modelled according to the two spectrums of civil society purpose and interactivity (see figure 3.2). They place Brockley Central in the category of "placeblog": "placeblog sites are set up by a single person or small group of people to report on local stories at a very local level. There is often a strong purpose of driving local change through shining the light on issues of local concern" (Flouch and Harris, 2010, p. 5)
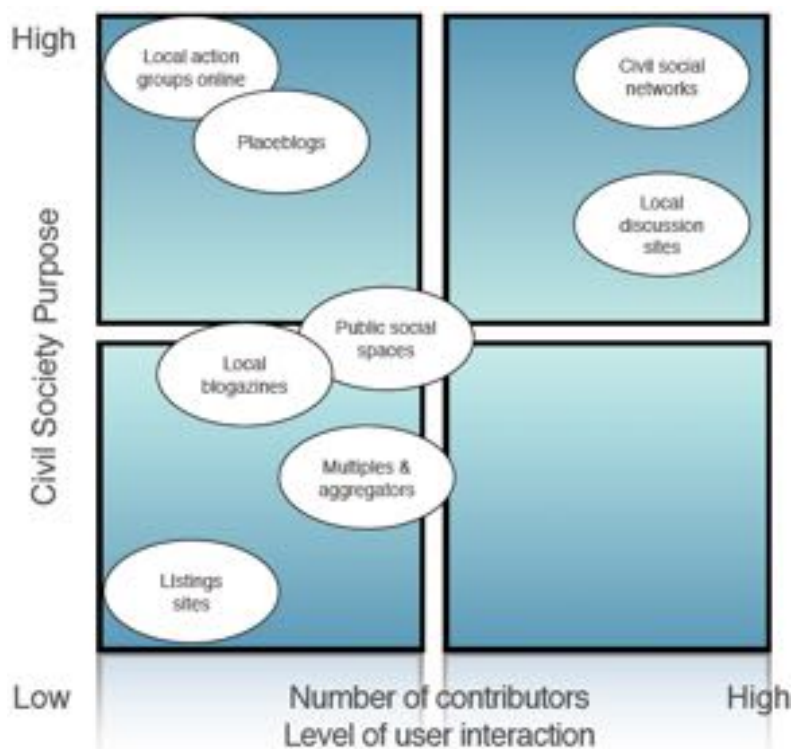
Figure 3.2: Schematic representation of types of hyperlocal media according to level of interaction and civil society purpose. Reproduced from Flouch and Harris 2010.

Flouch and Harris place hyperlocal social media profiles within the separate typology of "public social spaces" - "profiles set up on Facebook or Twitter for sharing information about areas and often light-hearted chit-chat" (Flouch and Harris, 2010, p. 7) – which they find to have a focus on local events, restaurants, and to a lesser extent campaigns. Their categorization offers a useful distinction between Brockley Central and allied but different undertakings such as "local digital news", which tends to be in the form of commercial sites covering larger areas (for example http://london-se1.co.uk) and "local action groups online", which are an online presence extending the activities of pre-existing campaign or action groups. So whilst Williams et al.

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defined hyperlocal media as digitally native and existing online in the first instance, Flouch and Harris include a wider gamut of websites and uses of social media in this term, with placeblog as an equivalent term to Williams et al.'s understanding of hyperlocal. Beyond the terminology, we see a repetition of the assumption that local communication should be judged for its instrumental value: "impact", or "implications for service providers" in the terms of Flouch and Harris' study. Their methodology reflects this, and is focused on building a dataset proving or disproving the ability of their case study sites to enable interaction. This is not necessarily a problem, but it opens up opportunities for my own work: to discuss the symbolic, phatic, and imagined meanings that were argued in chapter 2 to be fundamentally important to the place-making role of media (as opposed to the content); and to dig deeper into all-too-easily accepted concepts such as "networks" and "social ties" that such accounts inherit from the industry-academic-activist feedback loop.

Beyond these fairly pragmatic studies, which come largely from the point of view of communication and journalism research rather than any thoroughly spatial framework, there is practically no research focussing explicitly on hyperlocal media as a common feature of neighbourhood space in the built environment. Martijn de Waal's account of urban media, however, does take a specific focus on two types of hyperlocal media in the Netherlands and offers conceptualisations specific to the practice. He argues that through mediated communications "we use the places where we are to show who we are" by communicating both *in* and *about* a specific location *through* media, in a "symbolic spatial use" that intensifies experiences of place (de Waal, 2014, p. 68). De Waal describes this as a "doubling" of the experience of the urban – which can take place through both material encounter with space and access to mediated information about that space. He adopts "urban publics" as opposed to the more structured groupings implied by 'local community' as a way to describe the types of social assemblage that are built through this communication. A difference in interpretation comes though with de Waal's suggestion that these publics "are no longer formed only through simultaneous spatial use but to an increasing extent through all sorts of online platforms" (de Waal, 2014, pp. 67–68). As argued in the previous chapter, the suggestion here is that urban publics have always been formed through a combination of shared knowledge circulated through media *as well as* the realisation of that knowledge through immediate encounter with the people and places it concerns. Giving a brief account of two types of local online media in the Rotterdam suburb of Pendrecht, de Waal offers helpful categorisations of the kinds of effects each could have. The first is a daily first-hand update written by a local resident, covering everything from mundane observations - "the Bavo church clocks are working again" –

to events and news on individual residents - "Wim van de Pot…was recovering well from a stroke" (de Waal, 2014, pp. 68–69). In this example he characterises the blogger as a "public figure", an analogous role to that noted by Jane Jacobs in her observation of Greenwich Village in the 1960s as necessary for fostering the familiarity that sustains involvement in an urban locality and helps therefore to stabilise its population. The blogger in Pendrecht is "emphatically present in the neighbourhood, both online and offline" (de Waal, 2014, p. 69), creating a common point of contact that structures a familiarity between strangers that is fundamental to the formation of a local urban public. The blog, de Waal hypothesises, could also act as a "bridge" between people and sectors of the local population with differing cultures and interests – "if a resident who is a members of the Turkish community visits [the] blog to read a report about the Iftar meal, he will also come across a report of the music festival or a performance by the Pendrecht Theater in the Bavo church" (2014, p. 71). Potentially, then, publics for different issues could 'overlap', as also suggested by John Law. As de Waal points out though, this overlapping depends on the interests of the blogger themselves and relies on their ability to observe a range of issues and cultural forms at play in their area, meaning he has significant power over who overlaps and how. Finally, in relation to this blog, de Waal rightly warns that the existence of this kind of media does not automatically lead to greater levels of interpersonal connection. The lack of shared ways of life or an external threat to galvanize social organisation, or simply the use of communication tools for predominantly self-interested, practical issues rather than community-minded link forming, could all, according to de Waal, undermine the potential for public familiarity to build around communication platforms or networks. The second type of hyperlocal media described by de Waal is a page for Pendrecht on the (now defunct) Netherlands-specific social networking site Hyves, which was designed as a setting for discussion amongst current and ex-residents interested in specific neighbourhoods.[12] Here the effect is described as attribution of "symbolic meaning" rather than the building of bridges. In this discussion forum individuals perform several aspects of identity: their link to Pendrecht; their feelings in relation to that link (i.e. local pride, or indeed the opposite); and their belonging to an "imagined community" of other participants "who use the district to create a shared framework of memories and stories" (de Waal, 2014, p. 73). In this case study, participation in communication through hyperlocal media is framed as having symbolic value in the way individuals build an identity around place, rather than instrumental value in informing and bridging between sectors of the local population. We could also

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[12] It is notable in relation to the critique of designed platforms for place-specific communication in section 2.8 that the 'generic' platform of the blog, as far as we can tell from de Waal's account, still exists, while the platform designed to create specifically local forms of communication has failed to gain popularity. In the conclusion I will suggest and reflect on the fact that this seems to be a trend

perhaps think of this as representing two opposing directions of affect. The Pendrecht blog turns daily public life in neighbourhood space into a collection of stories online that intensifies residents' knowledge of and relationship with their immediate space and bridges social gaps with culturally diverse neighbours, further parochializing the neighbourhood through familiarity. It could be described as something like the formation of transpatial publics with spatial proximity through the framing of local issues in media. On Hyves, Pendrecht was used as a marker of identity for residents and non-residents alike, parochializing the social network by creating familiarity around common interest in a certain location, without physical presence in it, creating a transpatial public of individuals with categorical similarity but no necessary spatial proximity. Brockley Central, as will be seen in section 3.3, more closely resembles the former of these two.

3.2. Brockley: placing the neighbourhood

Brockley itself is a largely residential neighbourhood located in the north of the London Borough of Lewisham. Although neighbourhood centre points are not officially defined as geographical points in London, the transport node with the name Brockley on both London Overground and National Rail lines can be taken as a focus and is around 8.5km south-east of Charing Cross, the traditional (but highly contested) centre of London for measurement purposes (see figure 3.3). In Lewisham Council's Local Plan (figure 3.4) Brockley Cross, the road interchange just to the north of the station, is identified as one of the borough's "local hubs" which are understood to be "based around parades of shops within a residential setting" (Lewisham Council, 2011, p. 89). Commercial and other non-residential uses in Brockley actually extend significantly south of Brockley Cross and Brockley Station along Brockley Road (see figures 3.5 and 3.6), which runs through the ward and east the station of Crofton Park, and further to the south becomes Brockley Rise as it runs through Honor Oak Park and to Forest Hill. The continuation of the name Brockley through the spatial feature of the named road, as well as the rail line linking them, creates connected identity between the four contiguous areas of Brockley, Crofton Park, Honor Oak Park and Forest Hill. As will be seen in section 3.4, this connected identity is reflected in the spatial reach of Brockley Central's coverage.

Figure 3.3: South London showing Brockley station (Data: Open Street Map and its contributors. Design: Stamen Toner, under CC BY 3.0. Data by OpenStreetMap, under ODbL)
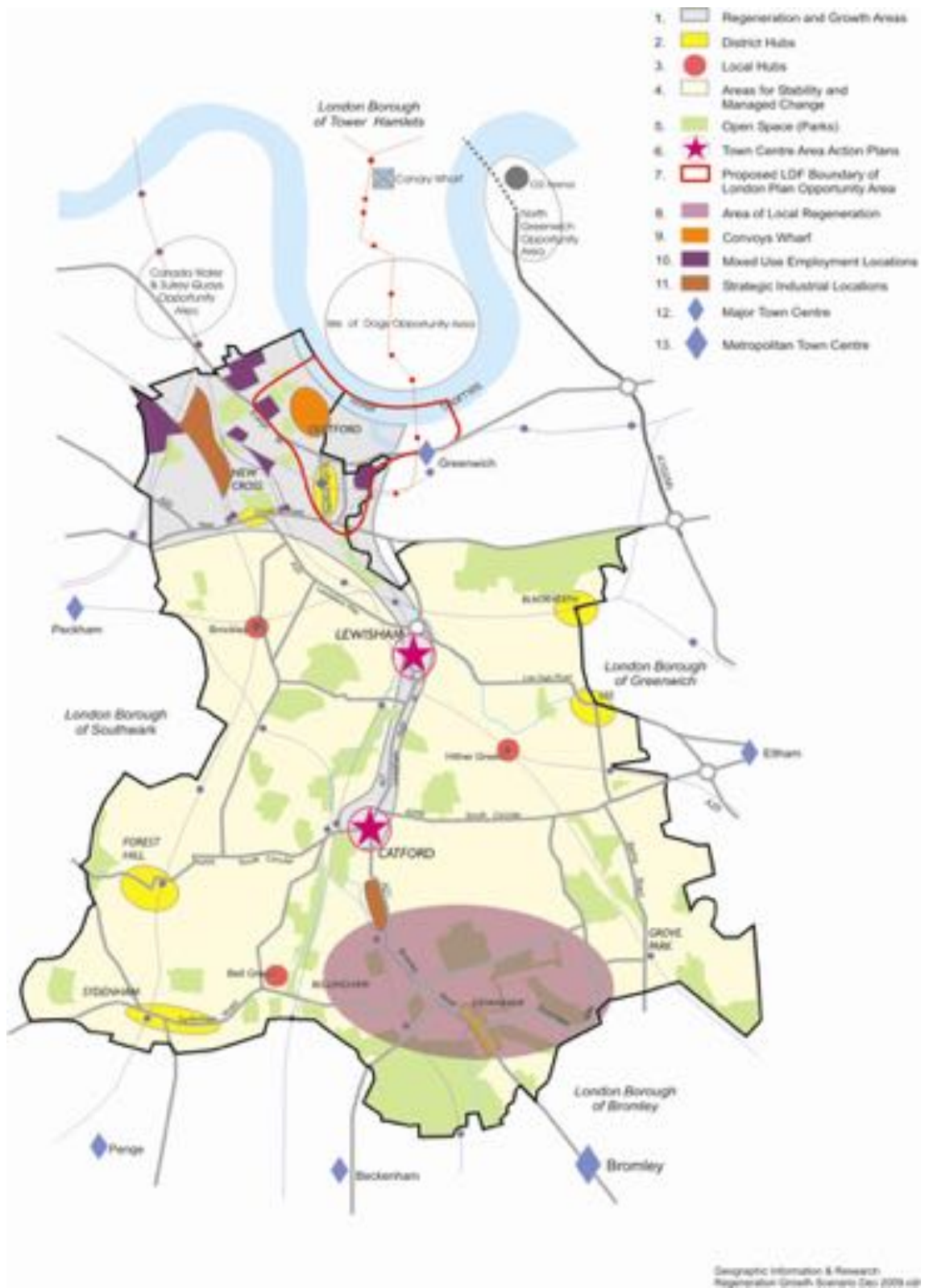
Figure 3.4: Map of town centres in the London Borough of Lewisham, showing Brockley as a local hub centred on the train station. Reproduced from council core strategy document (Lewisham Council, 2011, p. 44)

Figure 3.5: View of Brockley Road looking north from junction with Adelaide Avenue (Credit: Author)

Brockley, then, has a linear centre stretching along Brockley Road, and this centre is linked with those of Crofton Park and Honor Oak Park both in name and by the proximity of their parades of non-residential building uses. To the east and west of this centre are predominantly residential areas characterized by housing and short terraced streets, along with a small number of estates. Further to the east Brockley is delineated by the A20, the main trunk route from London to the port of Dover, which for the stretch adjacent to Brockley is mostly named Lewisham Way. The A2 leads to Lewisham Centre, the borough's main commercial hub at the eastern tip of what could be considered Brockley. To the west, the London Overground train line shown in brown on the map in figure 3.6 runs through a deep cutting with only four bridging points along the entire 2.8km length of Brockley Road / Brockley Rise. This creates a significant interruption in the street network from east to west, segregating Brockley from Nunhead and Peckham to the west.

Figure 3.6: Land use map centred on Brockley Road showing categorised building uses at ground floor. Building uses collected by the author. Background map © Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.
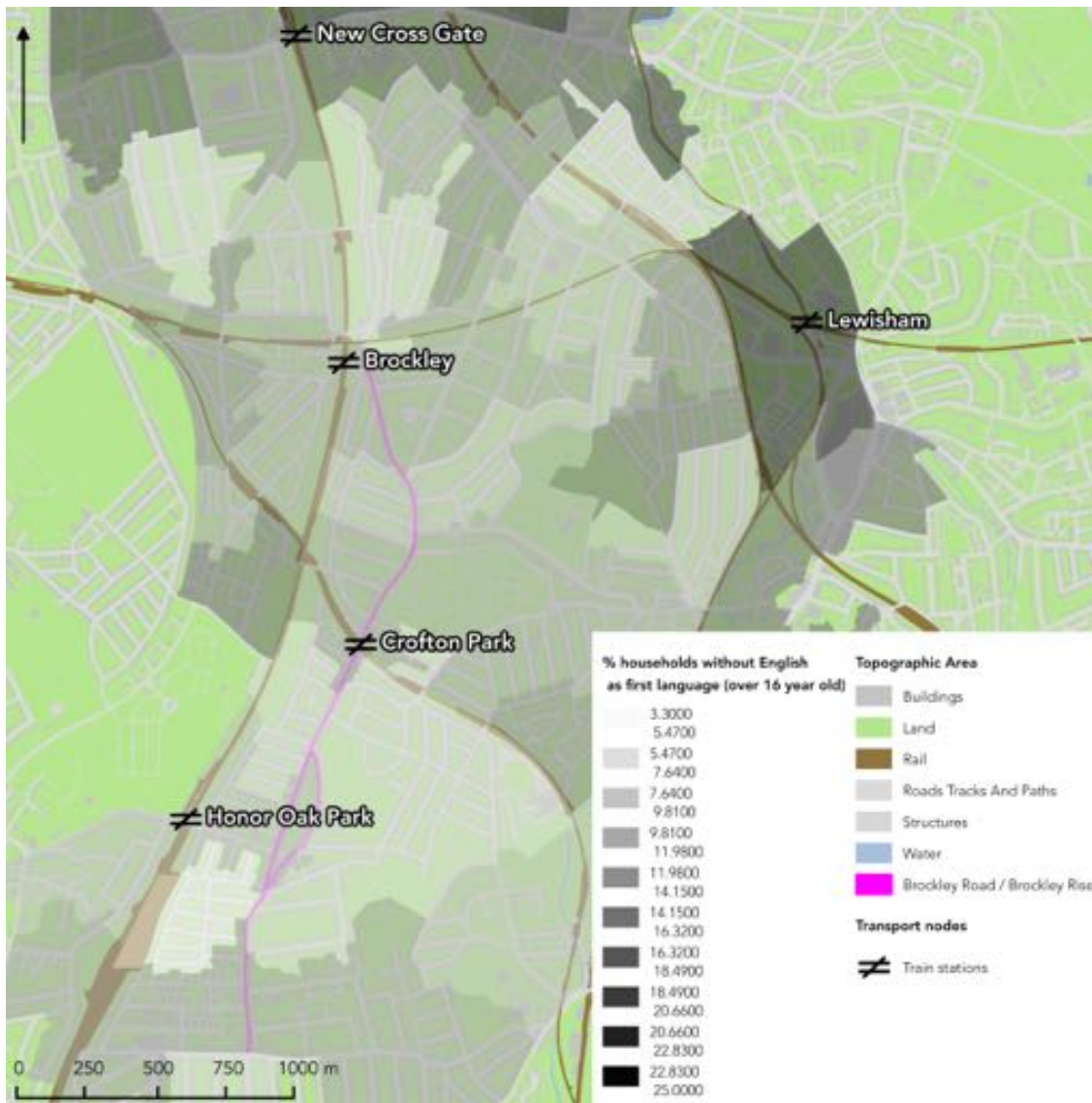
Figure 3.7: % households in Brockley and immediate environs with no adults (16+) having English as a first language. Demographic data: 2011 ONS census. Spatial data: © Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

The train line to the north – a National Rail route running east from Victoria terminus through Nunhead and Lewisham Centre – creates much less of a physical disjuncture: in only 1.4km from Brockley Station to Lewisham Way to the east it is bridged 5 times, creating almost no interruption in the street network. As we will see this distinction between spatial continuity to the north and disjuncture to the west also plays out in the spatial distribution of mediated hyperlocal life in Brockley. This layout can also be illustrated through land use mapping and street network analysis. The land use map in figure 3.6 shows public-facing uses at ground floor level – shops and cafes for example – clustered to the east of Brockley station on the north end of Brockley Road, and to the north of this at Brockley Cross, where the bridge across the north-south train line meets Brockley Road. To the west of the north-south train line and the north of the

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east-west train line is a business park consisting of workshops, light industry, and some disused space. South of the shopping parade considered by Lewisham Council as the Brockley Cross hub, and separated from it by a stretch of housing along Brockley Road, is another parade of shops and catering businesses around half way between Brockley and Crofton Park stations. After another small residential section to the south of this, with a school on the west of Brockley road and a large green space that is Brockley & Ladywell Cemetery, is the commercial hub of Crofton Park, focused around Crofton Park station and including some cultural facilities such as the Rivoli Ballroom live music venue and Brockley Jack Theatre. At the very south of the area there are two further commercial parades in Honor Oak: one on Brockley Rise consisting of mainly retail and another next to Honor Oak Park station with a mix of retail, catering and offices. Immediately to the east and west of Brockley Road the streets are almost entirely residential, interspersed with schools and community facilities. Though fragmented by sections of residential buildings there is a clear linear, interlinked commercial centre running through these otherwise semi-suburban areas of largely terraced housing. This will be seen later to be relevant to the way information is produced and shared hyperlocally.

Though the aim here is not to relate the use of hyperlocal media in Brockley directly to socio-economic factors, but some data on this is useful as further background to the area. Given that hyperlocal media consists almost entirely of written communication (with the addition of some images), language is highly relevant. Figure 3.7 shows the percentage of households that do not contain any adults with English as a first language for the smallest spatial units contained in the UK census (LSOAs) covering Brockley and its immediate environs in the most recent (2011) data. So whilst many may have fluent English as a second language, it does suggest where there are greater concentrations of people who may not be able to engage with Brockley Central as well as offering a proxy for cultural diversity in the area. The area along Brockley Road has the lowest levels of households without English, and particularly the area bounded by Brockley Road and the train line running through Crofton Park. The terraced streets to the west of Brockley Station have higher levels overall than those to the east, and south of the east-west train line on this side is a modernist housing estate (noticeable from the square rather than terraced building blocks) where up to 16% of households do not have English as a first language. There are also social housing estates east of Brockley Road and south of the station, possibly explaining the lower levels of English in this census area than in the streets immediately to its north and south. The highest values are to be found to the north in New Cross – which has significant West African and transient student populations – and around Lewisham

station. Brockley, then, is slightly less diverse in this sense than neighbouring Lewisham and New Cross, and within Brockley the most linguistic diversity is to the west of the London Overground train line, and often linked to the presence of social housing estates.

Brockley, as a place name, also corresponds with the administrative boundaries of an electoral ward and a postcode district. Though both these spatial reference systems are imposed 'top-down' for the purposes of centralised organisational systems, rather than as reflections of embodied notions of the extent of places, they offer in the absence of formally mapped neighbourhood demarcations or clear physical edges the best proxy for what Webber describes as the Euclidean *region* of space within which a place is located. Figure 3.8 overlays the electoral wards for Brockley and its surrounds with the outlines of postcode districts (the first part of the postcode that often come to equate spatially with neighbourhood identities). Drawing on Jonathan Raban's writing on the culture of location, style, and gentrification in London (Raban, 2008), Joe Moran describes the "symbolism" of London postcodes, which are used as a way to display cultural identity for the middle classes (Moran, 2007, p. 112) but have also been implicated in "postcode wars" between rival youth gangs that use their boundaries to define territorial frontiers (Thompson, 2010). By any means postcode districts are strong virtual markers of neighbourhood in London, in that their boundaries are not visible in space although as figure 3.9 shows they may become displayed as emblems in spatially-embedded media to perform spatial identity, and then re-mediated as a digital documentation of that mediation shared via the internet. The postcode district corresponding most closely with Brockley is SE4, stretching from Lewisham Way in the north, along the length of Brockley Road, stopping at Brockley Rise but covering residential areas to both sides including the streets and housing estate to the west of the train line. It includes all of Crofton Park but not Honor Oak Park, which is somewhat more distinct from Brockley, as will become clear.
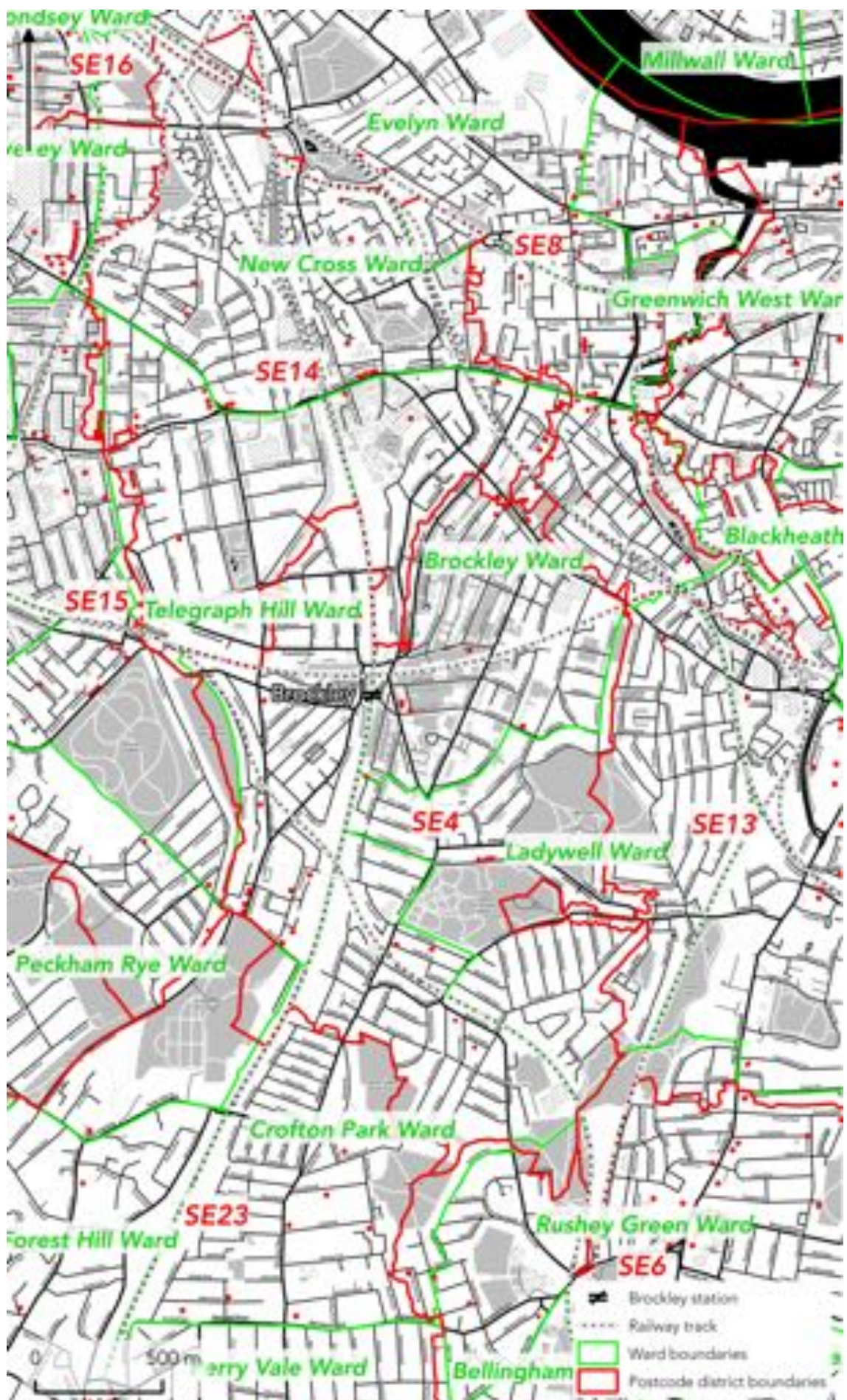
Figure 3.8: Map of postcode areas and wards centres on Brockley

The electoral ward of Brockley extends further to the east than the postcode district SE4, across Lewisham Way to include the small area of St Johns, which falls within the SE8 postcode district associated with neighbouring Deptford, and further to the north as far as New Cross Road, which is within the New Cross postcode of SE14. Crofton Park, which shares Brockley's postcode district, is entirely distinct as an electoral ward, and SE4 also covers the western half of Ladywell Ward. Most of Telegraph Hill, to the north west, is relatively clearly bounded both by the street network and the topographical feature of the hill, is within SE14 but part of it is covered by SE4 linking it both to New Cross and to Brockley in this sense. Again, this will become clear and relevant within the data below. In other words, an administrative definition of the region of Brockley as a place leads to contestable ideas of its boundaries, that overlap with (as in the case of New Cross) or subsume (as in the case of Crofton Park) neighbouring areas. Nonetheless, and importantly, these boundaries are fixed but they are also virtual. They do not move, but neither are they visible in space, though they may respond to spatial features such as the train lines. In fact, electoral wards and postcode districts are media themselves: encoded descriptions that only have reality in inscriptions – be they maps or legislations – but perform space as place.
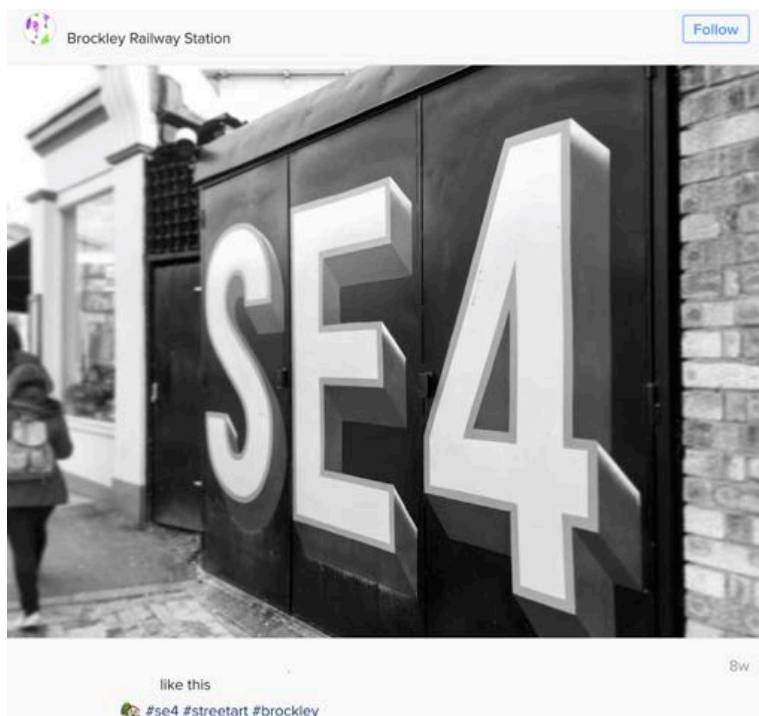
Figure 3.9: Multiple mediations of place: Instagram post of a mural of the postcode representing Brockley (profile name obscured)

While administrative boundaries are virtual, and not features of lived space, morphological analysis can be used to suggest a non-virtual definition of locality. Brockley's street network is shown in figure 3.10 as an axial map coloured according to its level of angular connectivity to Brockley station. Brockley station was identified in an informal phone interview with the Brockley Central's publisher as the location around which he imagined the blog's sphere of interest and is also identified in Lewisham Council's core strategy (figure 3.4) as the focal point of Brockley's local centre, so offers the best proxy for a spatial origin for centrality in Brockley. Angular distance measures the degree of change in direction in the shortest path between two points in space along the street network rather, than metric length. It has been demonstrated as a better representation of the human perception of closeness than metric distance, suggesting a "path of least resistance" type of pattern in the way people move through the city, and imagine connections within it (Turner, 2007). The interruption to the street network created by the rail line west of Brockley Road means that angular closeness falls away much more quickly with metric distance than it does to the east. There is a much stronger spatial connection, in terms of angular closeness, even with streets between 500 to 1000 metres to the north-east than those immediately to the west of Brockley station. Angular closeness also extends much further to the south along and around Brockley Road / Brockley Rise, with the relatively straight main road forming a close connection all the way through Honor Oak and to Forest Hill (just off the southern edge of this map). There are strong links with New Cross to the north, and Telegraph Hill, which is not significant enough to show as a place name but is the grid of streets immediately to the north-west of Brockley station, cross cut by a strongly linked street, and bounded on the east and south by train lines. Deptford to the north east and Lewisham centre (level with Brockley but to the east off the map), both over 1000 metres from Brockley station, are both much more connected to Brockley spatially than Nunhead less than 500m to the east. This analysis does not give us a definitive outline of Brockley but suggests a scalar understanding of locality based on perceptual closeness to a central point, that in this case falls away at extremely uneven rates in different directions from the centre of Brockley. It will be shown later in this chapter, as Brockley Central and its publics begin to be mapped out, that this spatial disjuncture is remediated by the blog's creation of a spatial realm from this territory.

Figure 3.10: Angular segment analysis of street network centred on Brockley Station

3.3. Brockley Central: a hyperlocal in practice

The blog Brockley Central came into existence on Valentine's Day (14th February) 2007, with a first post describing its publisher's visit to a meeting of the Brockley Cross Action Group in relation to their campaign to work with Network Rail and open up a green space next to the train station.

"I went to a meeting of the Brockley Cross Action Group meeting last night, to find out what their plans are for the area and see if there was any way I could help out.

It's a good group of people who actually seem to know how to get things done and have a clear vision for how they want to improve the area.

The plans for "Phase 2" of the Brockley Common development, on the wasteland by the station are really needed and will open up the land they've converted for "Phase 1", which at the moment is pretty inaccessible. I'd walked past it a hundred times and still wasn't clear how to actually get in there.

Brockley's lucky that it already has Hilly Fields and, to a lesser extent, Telegraph Hill, and I don't see the Common poaching many of their visitors any time soon, but it would completely transform the area around the station, which is currently such a poor advert for the area"

http://brockleycentral.blogspot.com/2007/02/brockley-common.html

This post set the tone for what was to come: framing specific locations (Brockley Common) as issues (potential development and lack of accessibility), but also giving opinion on these locations that is largely oriented towards upgrading and improvement of the urban environment. Underneath each post is a space for comments from readers, who can create profiles or post anonymously, and are able to reply to one another in conversations. On this first post one anonymous reader commented *"I wasn't aware that you could go onto the common. How about some well designed signage, bespoke, unique to brockley* [sic]*. Treat it like an art project."* This also sets a tone for the prevailing mode in which the blog is received by its public: becoming informed, developing an opinion, and potentially expressing that opinion, but as a purely expressive act and directed to nobody in particular.

180 Brockley Road plans revealed

The public consultation for 180 Brockley Road has just got underway at Toads Mouth Too. To coincide with the event, the developers have sent us some images, from the consultation.

From Above, coming from Brockley Cross

Figure 3.11: Screen shot of a story on Brockley Central, covering a planning application for a site on Brockley Road

Sometimes the blog's publisher implores people to direct their opinions in more specific ways that enable them to become instrumental rather than purely expressive. In the very next post published on 15th February 2007, the blog's second, he shares the text of a letter written to the Clerk of the Licensing Justices objecting to the licensing of a betting shop on Brockley Road and explains his reasons for doing so: *"I've got no problem with gambling. My objection is based purely on the fact that there are a million other things the street and the area could do with more".*[13] Again, there is a specific site, an issue, and a related opinion, but this time the post ends by providing the address for the Clerk and inviting readers to share their own objections. The only reader comment on this post - *"sounds like NIMBYism at its worst. What's wrong with a bit of gambling?"* – introduces another key mode of public reaction. This adversarial form of response derives from an ongoing debate on the blog about whether what its publisher sees as improvements and upgrades to the area are to be thought of as gentrification, and benefiting only the middle classes. We will see in personal accounts in chapter 5 that this debate is populated by a small number of highly vocal actors and tends to become vitriolic to the degree that it clouds out the potential for inclusive and productive public debate. Other main types of blog posts relating to specific locations are those promoting an event, often with text provided by the organisers of the event, and those reporting a change, such as a business opening or closing. In the 111 months (at the time of writing) since 14th February 2007, it has posted 5,699 individual stories, averaging 51 per month. In other words, posts are on average more than once a day and have been so consistently for the last 9 years.

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[13] http://brockleycentral.blogspot.com/2007/02/tell-it-to-judge.html.

Brockley Central, as a hyperlocal channel, also consists of a Twitter profile and a Facebook page alongside the blog on which stories are published in full. Twitter, though, has been selected for the study of the networked aspect of hyperlocal media, for various reasons. Firstly, it is simply more popular than Facebook as a way to connect 'socially' with Brockley Central. At the time of writing the Twitter profile @BrockleyCentral has 8,630 Twitter followers as opposed to the 3,802 'likes' for the equivalent Facebook page. Data on users is also most easily-accessible and complete on Twitter. Public information stored on individual profiles can be downloaded and analysed in the ways that will be seen in chapters 4 and 5, which use this information to map both Brockley Central's public geographically and in network terms. Furthermore, Twitter is used in a richer variety of ways in Brockley than Facebook is. The Brockley Central Facebook page reproduces Twitter posts sent by @BrockleyCentral automatically, but does not do so for its replies to other Twitter profiles nor for its retweets of other profiles. Also, the way Twitter is structured as a media platform gives it a much stronger public character, making it more relevant to the concerns of this work. Unlike Facebook, on which two individuals must mutually agree on becoming online "friends" to establish a connection, a Twitter "follower" relationship does not require reciprocity and can therefore, hypothetically, be more easily forged between strangers. Twitter's protocol therefore affords discussion between strangers, based around common interests and issues, more than Facebook's, which has been described elsewhere as being constrained by existing social ties (Loureiro-Koechlin and Butcher, 2013). Twitter is much more focused as an object of study than Facebook, hence its recent popularity in scholarship. The messages posted by any individual Twitter user are contained within their profile page, with a feed of messages posted of no more than 140 characters, within which other profiles may be mentioned using their "handle" (profile name starting with the character @) and topics are made searchable by prefixing topical words with the symbol #. Facebook on the other hand allows a complex mix of private messages, comments feeds, audio-visual content and interactive elements to be shared both on one's own profile and others, making it difficult to isolate the identity of an individual user and gain a full picture of their activity. Twitter gathers all communications and information for an individual profile, such as Brockley Central, into one page, making it much easier to discuss the way it works as a network of individuals.

Figure 3.12: @BrockleyCentral's first tweet

The Twitter profile @BrockleyCentral was created two years after the blog, in January 2009. Though Twitter was by this stage the 3rd most popular social network globally, it was only 2 years old and still had only around 5 million unique users as opposed to Facebook's 69 million (Kazeniac, 2009). Brockley Central can be thought of then as a relatively early adopter of Twitter as a platform for hyperlocal communication. It is used by Brockley Central's publisher first and foremost to promote links to posts on the blog. It is reasonable therefore to expect that there would be Twitter followers located residentially in geographical areas that are well covered by the blog. The Twitter feed becomes relevant to them as it helps them gather information about physical changes to their spatial surroundings, as in the following examples of 'headlines' to blog posts in tweets from @BrockleyCentral:

- "Public Art project for New Cross" (Barron, 2013a)
- "Mountsfield Park gets major makeover" (Barron, 2013b)
- "Introducing the Broca Brunch Club" (Barron, 2013c)
- "Late Knights gets the OK for its Brockley bar plan" (Barron, 2013d)

The Twitter feed takes on a much more interesting social dimension however when it is used by its followers to actively seek or offer information via the network built up by @brockleycentral. They do so by mentioning the @brockleycentral Twitter handle, which alerts its publisher to the tweet and implicitly requests a retweet, whilst also indicating more widely that the message is relevant to Brockley as a place. Once visible on @brockleycentral's feed, these kinds of messages invite response from the entire network of @brockleycentral's followers, though as will be shown in chapter 4 this does not guarantee the creation of connections between these followers. Rather, Brockley Central is usually a mediator via which these brief, publicly-visible communicative transactions take place. Examples of information-seeking messages retweeted by @brockleycentral, show how it can be used to access fairly trivial daily concerns but also mobilise local information in the face of more serious matters:

- @BrockleyCentral do you know of anything nice & local happening around the area today? I'm struggling to find something new to do! (Burns, 2013)

- o 2 responses
- @BrockleyMarket @BrockleyCentral do you guys know if there's a milkman in New Cross/ Brockley? (Win, 2013)
  - o 7 responses
- @BrockleyCentral does anyone know how I report a tree that looks unsafe/unstable? Am in Crofton Park and my garden backs onto railway line (Thelastenglishrose, 2013)
  - o 5 responses
- @BrockleyCentral large section of Wickham rd under Police cordon, anyone have info...? (Carroll, 2013)
  - o 8 responses

Followers also offer information based on physical observation of Brockley, on traffic or public space issues for example:

- @BrockleyCentral FOUND: yale type key, outside Babur on Brockley rise. Left it with guys at carpet shop next door. (V. Hill, 2013)
- @BrockleyCentral. Anyone in S E London looking for voluntary work with a conservation society, need look no further: http://www.do-it.org.uk/search/opportunities/ (Russell, 2013)
- Traffic everywhere! Drakefell Road...Vesta Road...Shardeloes Road... @BrockleyCentral #Brockley (Odong, 2013)

In chapter 1, parameters for this research were established that followed Peters in seeing media as strategies and tactics that constitute society, albeit here at a hyperlocal scale, rather than as texts to be analysed. However, this brief overview of communicative content on Brockley Central helps characterise it in terms derived from the literature surveyed in section 3.1. It has been suggested that it is typical of hyperlocal media quite generally in that it is digitally native, both initiated and carried out purely through the internet. It is also fairly typical in that it is focused on a blog and complemented by use of social media. Its publisher states in interview that it is not a profit-generating enterprise, which places it in the lower 70% of hyperlocal sites in financial terms. In this sense it is a voluntary rather than professional form of placed-based citizen journalism. It makes use entirely of pre-existing platforms for communication and does not attempt to create new protocols for communication, only topics for conversation of specific local interest within existing communication platforms. Although communication styles and certain basic visual elements could be thought of as design decisions, it is ostensibly 'non-designed'. Within the wider field of hyperlocal media, it is specifically a placeblog, established by an individual to increase

focus on issues of interest within Brockley, for its residents. It frames issues about the neighbourhood on its blog, while making use of Twitter to broadcast those framings, and in this sense it is a hyperlocal news outlet. It also, though, is a network, to the degree to which mutual followers of its Twitter profile can come into connection via @BrockleyCentral. The core of the research question in this work, though, is not to analyse the content of the Brockley Central's issues and networks but their placement within and interrelation with the spatial territory of the neighbourhood itself. The following four chapters represent four approaches to doing so, creating an argument for a hybrid method to spatializing media in the city.

4. Method 1: Placing a Hyperlocal Blog and its Publics

4.1. Introduction

The first of the four approaches to spatializing hyperlocal media in Brockley responds to the issue of defining *where* a blog is, and how the audience or *public* for that blog is distributed geographically. Clearly, blogs are not physical entities in the way that urban morphological features like neighbourhoods are, but the very notion of the hyperlocal blog suggests that media *can* be situated *in* a place. As seen in chapter 3, attempts to show where hyperlocal blogs are have gone no further than assigning rough one-dimensional locations to the localities they represent. When location is simply a label, space becomes a background to the content published by a hyperlocal blog and the social, political, and economic context within which it operates. These issues of content and context are relatively well covered, with Brockley Central itself having even been taken as a case study. In this chapter, spatial data related to the blog and its Twitter followers are used to create much more detailed, two-dimensional geographical representations of Brockley Central and its publics, that correlate with and illustrate theoretical notions of the public sphere.

4.2. Brockley Central: placing the blog

As Peter Dahlgren has noted, "geographical political entities define territorial place, yet the boundaries of public spheres are not always congruent with political boundaries" (Dahlgren, 2001, p. 38). In section 3.2, such geographical political entities were seen in the form of the fixed but overlapping boundaries of regions of space that could be called Brockley and SE4, based on the political and administrative entities of electoral wards and postcode districts. In this section, various approaches are taken to locating Brockley Central itself, both as a Euclidean spatial region imagined by its publisher and as a flexible realm formed from the spatial distribution of its publics and the flows of communication between them. Dahlgren continues to point out that "Habermas (1996) now understands the public sphere as consisting of a seemingly ungraspable myriad of distinct but also overlapping, interweaving, communicative spaces" (Dahlgren 2001, p. 39). Like the spatial region of Brockley, it could be argued that while it is impossible to state where are the edges of Brockley's public sphere, its centre is almost certainly the blog Brockley Central. So although the initial starting point here was the blog Brockley Central and its Twitter feed – as sites for public information and social communication – many other communicative spaces and practices will be accounted for as they 'interweave' with, follow on from, and overlap with Brockley Central's at varying scales. Following the framework in chapter 2, these spaces could also be called communication settings, that are either framed physically or through

Figure 4.1: Ward and postcode boundaries before and after expansion

media, focused or unfocused, public or private, allowing technological and non-technological forms of communication to be understood in similar terms.

The simplest way to assign a spatial territory to Brockley Central is to map the administrative area relating to its own definition of its coverage. During the earliest stages of this research, the blog described itself as "the online home for all things Brockley (SE4), St John's, Ladywell, Nunhead and Telegraph Hill". This spatial self-identification could be described as Brockley Central's publisher's imaginary of what constitutes a coherent neighbourhood. In 2015 Brockley Central's spatial description was updated to "the online home for all things Brockley (SE4), Deptford, Ladywell, Lewisham and New Cross", concurrently with the adoption on the blog of the semi-serious term "Greater Brockley" to refer to the expanding area of its perceived relevance. Each of the place-names listed by Brockley Central in its description of itself can be related to an administrative area, which together create a flat Euclidean region of space representing the blog's publisher's own idea of his coverage. Figure 4.1 shows the region representing Brockley Central's imagined territory, formed of a combination of postcode and ward boundaries, both before the expansion (2014) and after (2015). This region can be seen to have grown to the north – to include the whole of New Cross rather than just Telegraph Hill – and shifted eastwards, contracting from Nunhead in the west but adding Lewisham and Deptford to the east. The kind of 'top-down' notion of socio-spatial coherence represented by administrative boundaries, though, does not necessarily reveal much about the way Brockley Central creates a public sphere in practice. Despite the convincing argument, epitomised by Wellman, that communities are not social groupings contained within a region of space but networks concentrated in a locality and extending beyond it, such hard-edged representations of place are still commonly used. Dahlgren, Habermas, and Webber have all in various ways argued, as has been recounted above, that clearly-boundaried regions are not sufficient ways to describe the public spheres of communication shared by communities. Publics are defined by participation in communicating settings and *not* by residential location. This is a relatively well rehearsed argument, but rarely have attempts been made to demonstrate it by *placing* these publics geographically. By mapping more detailed data derived from Brockley Central's hyperlocal channel it is possible to visualise spatially the interweaving realms of publics formed through different communication settings.

Firstly, plotting the locations framed in stories and issues by the blog's publisher gives a more nuanced representation of the blog's spatial region than one that follows clear

boundaries. By selecting locations to frame, the hyperlocal publisher creates a region *in practice*, that in this case is not the same as the one imagined in advance as a pre-determined territory. This is a subtle reversal of the obvious way of thinking about the role of place in shaping the blog's content, and one that follows Law's ideas of the place-making capacity of issue framing in media. Instead of assuming that the blog always discusses issues that are geographically within a determined space of place with clear boundaries, issues themselves can be taken *a priori* and a public realm for Brockley drawn around their distribution. To demonstrate this, locations referred to in two samples of twelve months' worth of blog posts were manually located and plotted, by reading each post in turn. The first sample totalled 81 blog posts (June 2013 – May 2014 inclusive) and the second 78 blog posts (June 2014 – May 2015 inclusive). In each blog post any places mentioned were matched to a map point location (as opposed to a region) and recorded with a marker in a GIS. For example, in the post "Catford Bridge Tavern bought by Camden Pubco"[14] the marker for "Catford Bridge Tavern" is identified on an OpenStreetMap layer in the GIS and a point in a new layer placed on its exact location. The place names Catford and Camden are not added as they refer to regions of space rather than points in space, and furthermore are not the specific topics of the post but mentioned circumstantially in relation to the main issue. Figure 4.2 shows two maps including point locations overlaid with the administratively-defined or *imagined* Brockley Central region: one for the smaller 2014 region with only the locations mentioned in the first sample, and one for the updated 2015 region with all the points including those mentioned up to May 2015. It appears that the imaged region expanded partly to incorporate locations that were already being discussed in practice, further north into Deptford for example. The part of Nunhead that is no longer included in "Greater Brockley" has very few locations referred to in the blog whereas there are many in Deptford, which was added in the updated imaginary in 2015. Though there is not enough data to assert this as a definite claim, it very much seems that this expansion follows angular closeness, or accessibility, to Brockley station, shown on the maps in grayscale axial lines.

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[14] http://brockleycentral.blogspot.co.uk/2013/07/the-catford-tavern-bought-by-camden.html

Figure 4.2: Top: Angular analysis of street network with (top) BC self-defined region up to 2014 and 81 blog posts locations from 2013-14. Bottom: self-defined region from 2015 with 159 blog post locations from 2013-15. Growth of region incorporated locations already being framed.
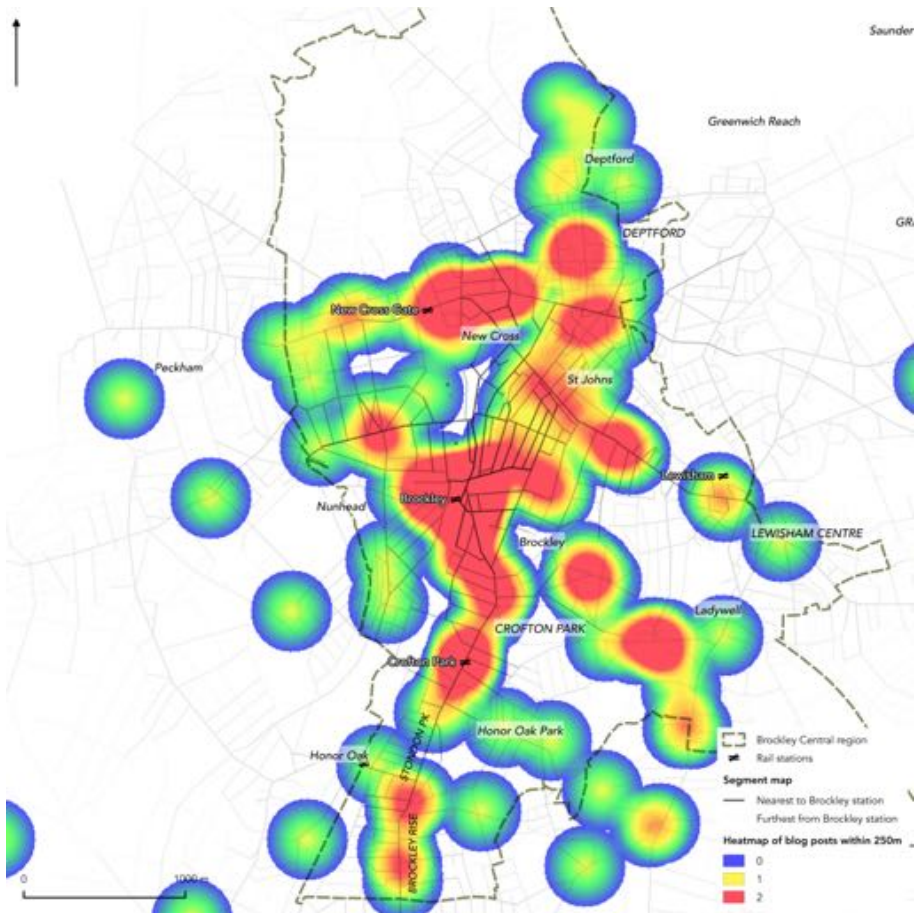
Figure 4.3: Angular analysis of street network with (top) BC self-defined region up to 2014 heatmap of blog coverage derived from 2013-14 post locations and (bottom) self-defined region from 2015 with heatmap derived from 2013-15 post locations

In 2014, locations that were easily accessible via the street network from Brockley station, such as those in Deptford, Ladywell, and Lewisham, were already been mentioned, even though they came outside the blog's imagined region. Relatively inaccessible Nunhead, on the other hand, was barely mentioned even when it supposedly was part of the region. This methodology leads to two interesting and complex interrelations. Firstly, the important difference between the imagined and practiced performance of place in media. In John Law's example of Gross Domestic Product, the *imaginary* of national coherence in such a framing hides the *practical* reality of stark regional economic inequalities that, if mapped, would perform different spatial coherences such as that expressed in the north/south divide in the UK economy. Similarly, though with arguably less critical consequences, Brockley Central's self-presentation of a consistent region of even and clearly delineated coverage is belied by the practical reality of the uneven performance of place. The second interrelation is that between spatial morphology, the imaginary of place through nomenclature, and the performance of place through framing. It is not clear, or even important, which of these factors are proverbial chickens and which are eggs. What is interesting is that there is a mutual reinforcement between issues that feel close at hand in terms of spatial accessibility, the practical framing of those issues, and the shifting imaginary, and therefore naming, of a region of space performed through the hyperlocal channel and therefore becoming virtually linked to Brockley.

There may even be other factors at play, that suggest another layer of nuance to the performance of place through issue framing on Brockley Central. Previously in figure 3.6 it was shown that the vast majority of non-residential land uses in Brockley are concentrated along the main road, with adjoining streets nearly all residential. Residential land uses are private and slower to change than commercial, tending not to generate issues that can be framed in media as points of common concern. They are also often uncontroversial, except for when they are modified or constructed. Non-residential land uses – businesses, community and education facilities and so on – change much more quickly, can be highly controversial, and are also matters of public interest, meaning they regularly give rise to issues framed by Brockley Central. The locations of these issues, then, do not form an even surface within which Brockley Central is equally active, but are strongly concentrated where space in dominated by publicness (in terms of both exterior circulation space and semi-public interior commercial and civic spaces) and more weakly concentrated, or even absent, where space is dominated by privacy (in terms of residential space). We could refer, then, to something like the *concentration of practice* to describe the formation of a region for

Brockley Central. Figure 4.3 represents this pattern of concentration in the form of a heat map, showing the number of location referred to in blog posts within 250m of any given point in and around Brockley for both the 2013-14 sample and the aggregate of both samples. This reveals the strong domination of Brockley Central's content by issues located in the space immediately around Brockley station. To a lesser extent, its region is concentrated linearly along the angularly close commercial main road south of the station through Crofton Park and Honor Oak Park. There is also a concentration around Hilly Fields – the large green space between Brockley and Ladywell which contains a school, café, and regular public events – as well as around Ladywell station. Further afield it concentrates on New Cross Road, and to the north-east of that Deptford High Street. The whole of Telegraph Hill and the area from Brockley station to Deptford have almost consistent coverage, meaning that people living in this area are all within 3 minutes' walk (250 metres) from a location mentioned by Brockley Central in the sample of blog posts, making the issues it frames extremely local to their private domains. Further east and south, towards Lewisham and Honor Oak, coverage becomes patchier and once again it is almost non-existent west of the rail cutting through Brockley and Honor Oak. In response to the central research question, this suggests new ways of understanding the geographical region of a hyperlocal blog, or indeed any place-based media. The spatial territory of Brockley Central is *uneven* and *scalar* in its performance of place: uneven in that the spaces it discusses are focused along strong spatial connections to Brockley station and other spatial integrators and absent in nearby but spatially disconnected or residential areas; scalar in that its relevance to any given location, in terms of how much it frames issues that are geographically proximal to that location, is not binary but on a spectrum of intensity.
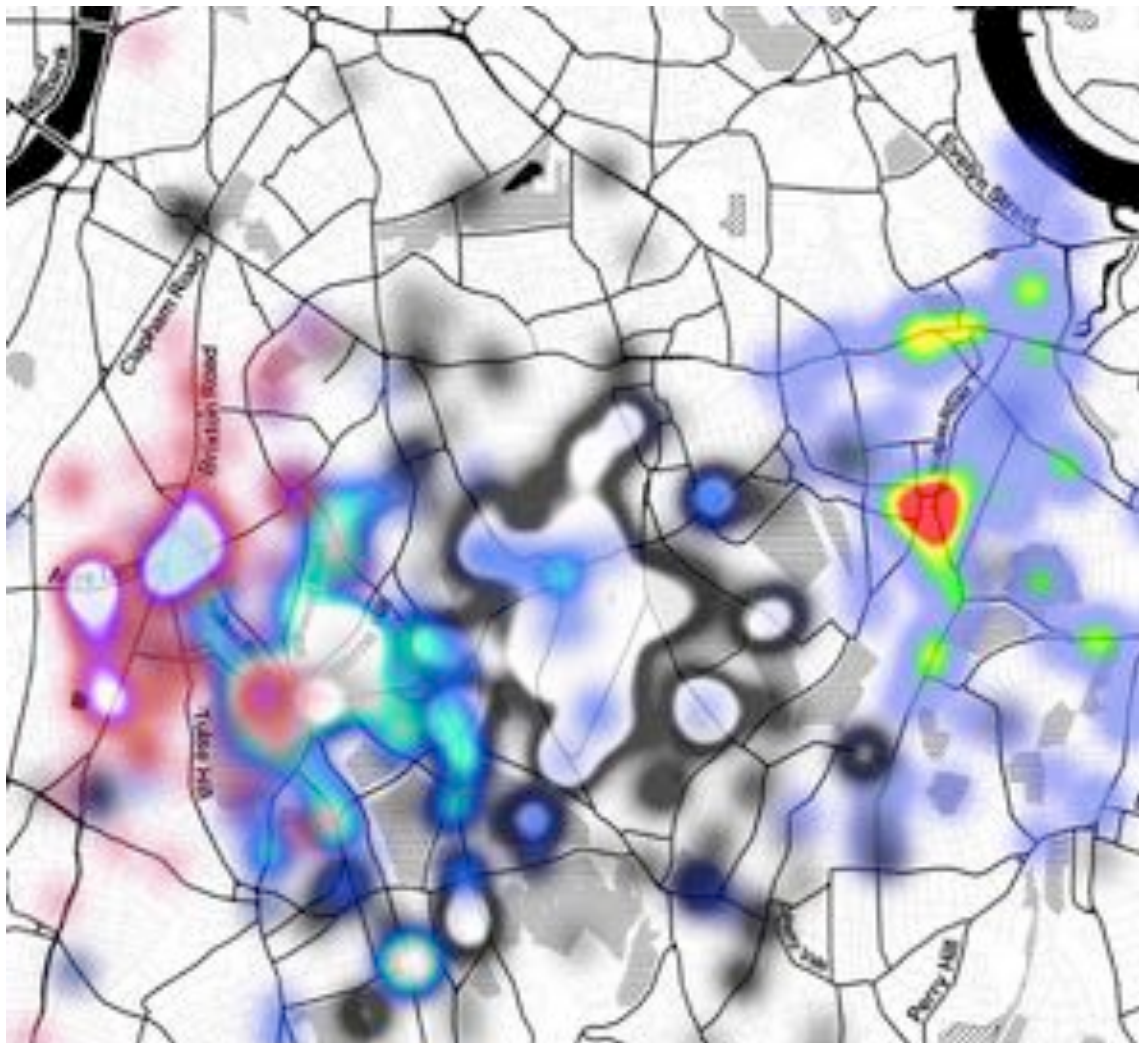
***Figure 4.4: Heatmaps of locations referred to in posts on four blogs. Left to right: Brixton Blog
(pink → white), hernehillforum.org.uk (blue → white), eastdulwichforum.co.uk (black →white),
Brockley Central (blue → green →red).***

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

As shown in figure 3.1, hyperlocal media has been studied so far as a set of practices
with location as a backdrop, represented by a pinpoint. The reconceptualization
presented here allows it to be understood in a much more spatially nuanced way than it
has been previously. Many hyperlocal blogs, and indeed other types of media, could be
mapped quickly by using administrative boundaries to represent their indicative spatial
extent, or *imagined region*. In more detail, it is possible to demonstrate the full extent of
its coverage *in practice* by mapping the issues it frames, revealing where the blog is
concentrated and where there are gaps in its coverage. This method also reframes
place itself as something with soft, overlapping edges rather than hard boundaries,
reflecting Dahlgren's characterisation of public spheres as "distinct but overlapping". In
Bingham-Hall and Tidey (2016), we demonstrate this by extending the method to
neighbouring localities, mapping issues on hyperlocal blogs for Brixton, Herne Hill, and
East Dulwich (figure 4.4). The public sphere of each locality is centrally concentrated in

its coverage of located issues but the edges between them blur to varying degrees. There is strong overlap between Brixton Blog and Herne Hill Forum, for example, suggesting that publics in these localities conjoin and combine over certain issues. East Dulwich Forum, on the other hand, is more strong divided from Brockley Central by the train line, overlapping mainly at Honor Oak Park at the only point at which a main traffic route links the two, and where Honor Oak's shopping parade and station are located. Issue mapping, then, is a novel and highly nuanced way of placing hyperlocal media that takes concepts from media theory and shows that they can be translated into spatial techniques that could in fact be applied to spatially-oriented studies of a wide range of media. These techniques reveal geographical gaps in coverage, and also make visible social overlaps between the public realms of neighbourhoods in ways that will be built upon in the next section, turning to the placing of Brockley Central's audience, or its publics.

4.3. Brockley Central: placing the public

So far Brockley Central has been placed in terms of the territory within which it operates, both in terms of its publisher's imaginary and in practice through the distribution of issues it frames. Either way this territory is a specific space, even if that space is uneven and scalar rather than flat and clearly bounded. In this sense, to call on Webber's terminology again, it is a most like a Euclidean region of space within which a place is located. This section illustrates means to locate the public for Brockley Central, and specifically for its Twitter feed, drawing on Webber's description of the flexible realm across which a communication network operates. Webber, however, saw networks of communication as necessarily being social ties formed *directly between people* – even if distant, mediated, and based on common interest rather than proximity. His notion of a communication realm as the space occupied by members of a communication network, and shifting as they change both location and media sources, is borrowed but combined with a definition of social connectivity derived from Law, following Habermas, as a *public* gathered virtually around media rather than directly in contact with one another. Combining both readings suggests that publics are mediated social groupings that can come in and out of being around certain issues and communication settings, but still consist of individuals that can be located in space. In what follows, two methods are explored for placing the individuals that form Brockley Central's Twitter network are described, and their implications and issues discussed.

4.3.1. Placing the Public: method

Firstly, in this case, I would like to point out the limitations of any attempt to locate and represent geographically the audience for a hyperlocal media channel, so that it is clear later why its Twitter network is used here. Ideally, it would be possible to assign a location individually to every audience member for each platform forming the Brockley Central channel and aggregate their distribution as an uneven, scalar territory of degrees of concentration, as was done for the point location data for issues in the previous section. This is an impossible task for several reasons. Firstly, web traffic records, documenting visitors to the blog do not contain location data granular enough for the hyperlocal scale of spatial distribution required in this analysis. Secondly, Brockley Central does not collect this individual audience data anyway, as such complete records usually require paid-for monitoring beyond the means of this non-profit-making undertaking. There is also a problem of definition: is a one-time visitor to the blog an audience member or just passing by? A Twitter following relationship is a stable technological association, and easier to think of in terms a regular audience. Out of all possible audience members for the Brockley Central channel, those that follow the Twitter account @brockleycentral form, for the illustrative purposes of this research, an acceptable sample to act as a proxy for its public. There are of course many complex issues around representativeness of this sample, its self-selectivity, and the degree of interchangeability between the blog itself and its Twitter feed. Whilst it has been shown that the use of social media as an extension of hyperlocal blogs is common there may not be complete overlap in the audiences for the social media and blog aspects of any given hyperlocal channel. However, from the interview evidence that will be properly introduced and explored in detail in chapter 6 it is clear that Brockley Central's Twitter is commonly used as an access point for news on the blog, as it posts links through to individual stories. Anyone following the Twitter profile has also made an active choice to do so, entering into Brockley Central's public by participating in this platform, eliminating those who may have simply chanced upon the website accidentally. With this in mind, the stated individual locations of Brockley Central's followers on their Twitter profiles can be used as an indication of the spatial distribution of its public. These data were collected using an online tool that gathers information for all the followers of any given Twitter account. For every profile this publicly-available information voluntarily made available, including user name, personal description, and location. Location is an optional profile field on Twitter but does allow users to assign themselves a location at any degree of granularity: they could for example state their location as 'Europe', or give a pinpoint street address. Having been gathered, this data was manually 'cleaned' to remove extra or misleading text that could skew the location: for example, many people used colloquial or comical spellings

of London ('Lahndahn', 'London Town') or colloquial add-ons ('Brockley, innit'). When more than one location was given (i.e. 'London and Scotland'), only one was kept, that was closest to Brockley, with the assumption that it was on the basis of interest in this location that the individual had followed Brockley Central. The remaining word or phrase for each user's location was then used to generate x/y map coordinates, by mass geocoding this data with Google's *Maps API*, which performs a Google Map search for each word and returns a pinpoint location to represent this place. London, then, is not represented as a region but as a point in space that is used consistently by Google as a centre point for the city. As for the locations of issues in the previous section, these point data are shown in the form of heat maps for samples taken in 2013 (figure 4.5), before Brockley Central expanded its region, and in 2015 (figure 4.6) after it had done so.
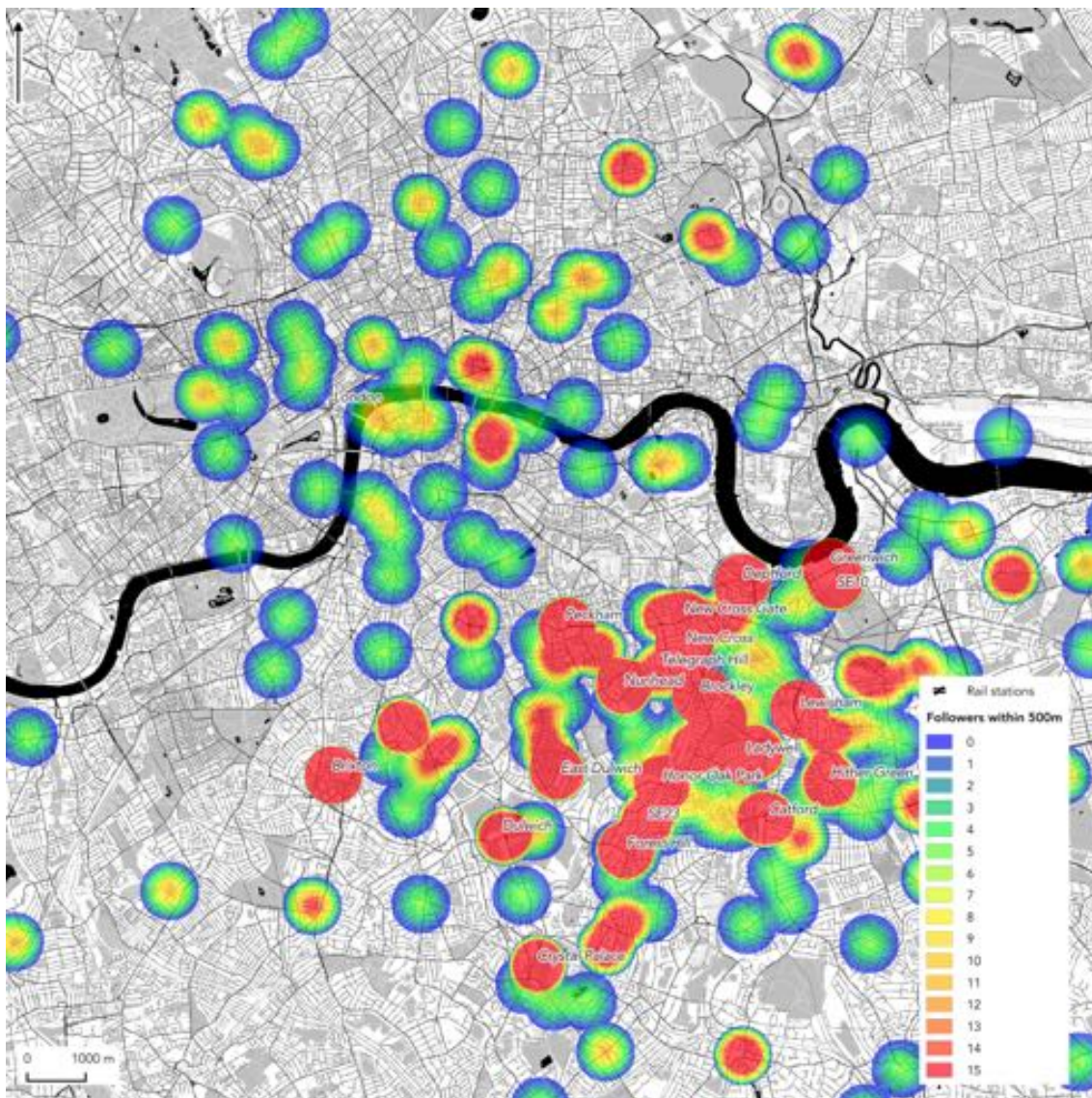
Figure 4.5: London-wide heat map showing distribution of followers within 500 metres of every point (self-defined locations from Twitter profiles). Place names displayed are the 20 most commonly used descriptors of location on Twitter profiles, matched to the location returned by geo-coding for this descriptor. Sample taken April 2013.
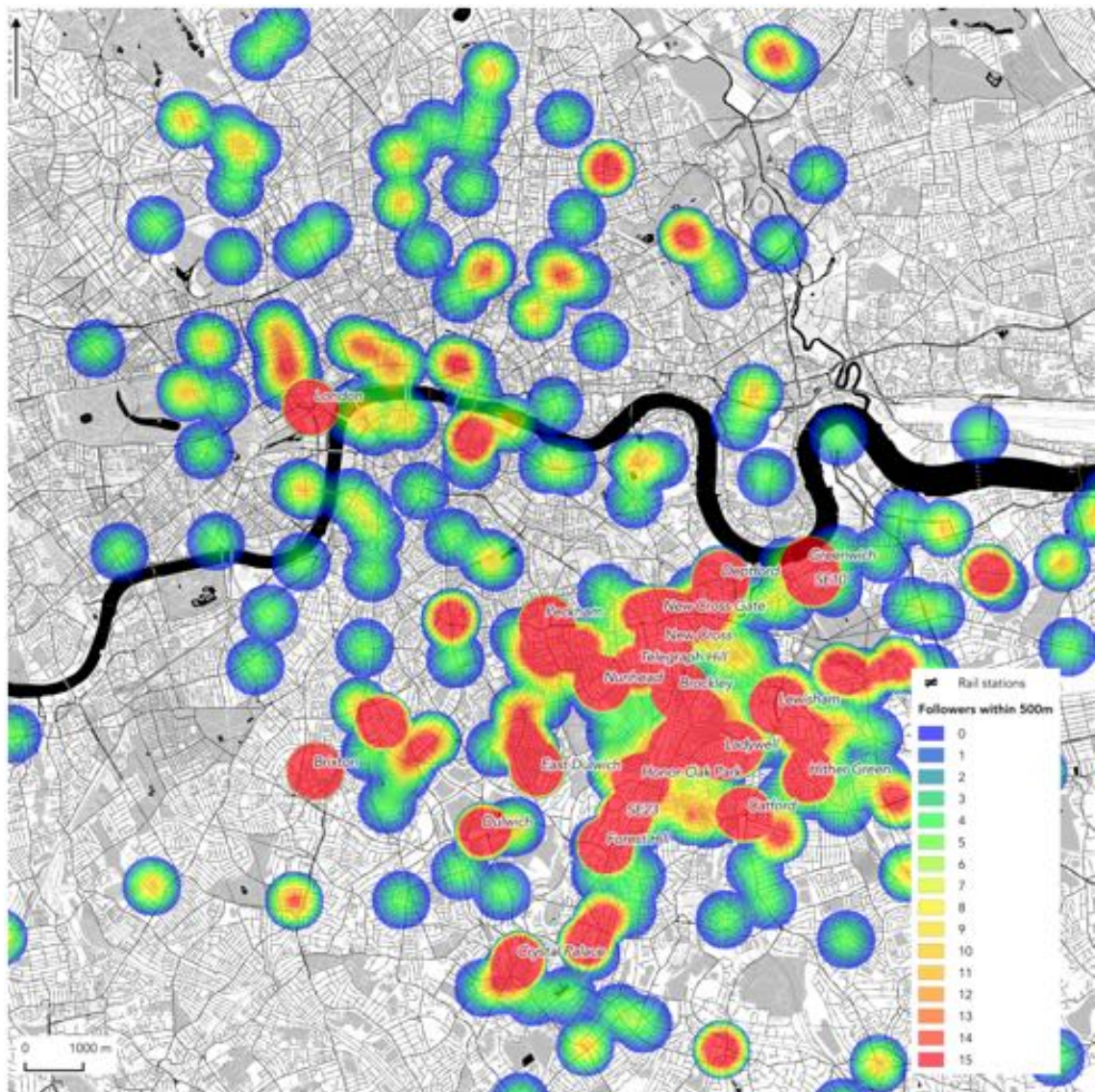
Figure 4.6: London-wide heat map showing distribution of followers within 500 metres of every point (self-defined locations from Twitter profiles). Place names displayed are the 20 most commonly used descriptors of location on Twitter profiles, matched to location returned by geo-coding for this descriptor. Sample taken April 2015

Background maps for both: Stamen Design, under CC BY 3.0. Data by OpenStreetMap under ODbL

Before analysis of its distribution, the nature of the data itself raises several interesting points. Firstly, the very fact that Twitter encourages people to specify their location suggests an implicit acknowledgement of the importance of place as a structuring factor in social media use. Secondly, that we assume the place specified by a Twitter user to be where they live. This places an emphasis on the stability of residential location that may be unrealistic. The idea that the anchored location of home is the most important form of geographical identity has been challenged by mobility-oriented notions of place identity: non-residential locations habitually used for work or leisure, or place-specific subcultural belonging, may be more important forms of spatial identity than home (see for example Urry, 2007). Finally, following the previous point and

building on discussions in the previous chapter, it transforms location from something that can be thought of in Bill Hillier's terms as a spatial identity, to something that can be thought of as a transpatial identity, in the way it was observed by Martijn de Waal as being used in the Hyves network in the Netherlands by ex-residents of a neighbourhood still interested in discussing the area. In Hillier's reading, categorical labels (i.e. 'built environment researcher') are something we carry with us whilst the places within which we practice these identities (i.e. UCL, Bloomsbury, London) form spatial labels that are contingent on our physical location. On Twitter, however, self-presentation is divorced from an immediate spatial context so location becomes more akin to a categorical identity, and even a way to affiliate culturally with certain characteristics of place, with the intention of entering a public of interest around that place rather than identifying as a resident of it. For example, by entering "London" into the location box on my Twitter profile and "built environment researcher" into my personal description, I assert an identity as a "Londoner" and as an "academic" that I can now carry with me wherever the other Twitter users I encounter online are located. So a map of self-assigned locations presented by Brockley Central's Twitter followers, which is presented below, is partly an indication of what can be assumed to be the spatial distribution of where they live, but also partly an illustration of the way they perceive their own geographical identities, and wishes themselves to be perceived by other Twitter users. The data collected, then, is a set of self-defined locations that may, for whatever reason, be different to the actual place they actually reside. Most of these locations are regions (city, postcode district, or borough, for example) rather than points (full street address) in space, but that both here are represented as point locations. It is also important to bear in mind that this point location is that which is determined by Google Maps as the marker for that place.

4.3.2. Placing the Public: analysis

Firstly, what is striking in the distribution of these self-stated locations is the city-wide distribution shown in figures 4.5 and 4.6. If ever it were tempting to imagine a network of people sharing a hyperlocal communication setting as a *community*, this distribution challenges such an imaginary. Why do so many people who claim to live in Brixton or Crystal Palace – both miles away from Brockley by any definition – follow @brockleycentral? Are they part of a @brockleycentral community of Twitter users, and by proxy part of Brockley's community? Perhaps, if the definition of community is stretched far enough. It sits more comfortably, however, if we think of these people as an audience, or indeed a *public* for Brockley Central, just as these same individuals may be publics for blogs more local to their own homes, city-wide media such as the London daily newspapers, as well as national and international platforms.

In the previous section it was seen that the territories staked by hyperlocal blogs overlap one another, and suggested that their publics would therefore also do so, which is reaffirmed by this analysis. This looks more like Dahlgren's model of overlapping communicative spaces with interweaving publics than Castells' prediction of communities acting as units. This is not to say that Brockley as a geographical space has no impact on this distribution: the public for @brockleycentral is concentrated geographically in a similar pattern to the blog's practiced region.

Brockley is the most popular location, with strong concentrations just to the south in Crofton Park and Ladywell, and north east in New Cross and Deptford, and less connection with locations placed to the west of the rail line. There is little marked change between the two samples – in the larger 2015 sample, gaps around Brockley itself are filled in, there is a slight growth towards the north of Deptford and New Cross (which became incorporated into the blog's imagined region) and a greater concentration of people state London as their location. The point of such a geographical visualisation is not necessarily to prove exactly where Brockley Central's public is however – these maps are snapshots in time and will change as followers are lost and gained – but rather to enable the social network of a hyperlocal blog to be thought of as occupying a different kind of space than the blog itself. The spatial region of the blog may be scalar and uneven, but it holds together as a continuous surface – in Hillier's terms it is *spatial*. The Twitter network does not hold together in a continuous space but is *transpatial*: it consists of individuals are in specific spaces but are also separated by regions that do not contain members of that network. As will be shown in the next chapter, those individuals are not necessarily connected to one another but are at one step remove as part of Brockley Central's Twitter network, forming a networked public of onlookers. Mapping self-stated locations on Twitter, however, runs into similar issues as using administrative boundaries to map a blog's self-stated coverage: it relies on both personal imaginaries of spatial identity and top-down definitions of place (in this instance Google's rather than the Post Office or government's). Another, more nuanced, representation of the placement of Brockley Central's publics emerges from actual use of space and the traces it leaves, in the form of Twitter's geo-tagging functionality. Like Brockley Central's self-stated region of coverage, self-assigned spatial identities are an imaginary of individual location while geo-tagging is analogous to a distribution of location in practice. Geo-tagged tweets include specific x/y location coordinates in their metadata, captured from the GPS location of a mobile device used to post the message, showing spatial traces of members of Brockley Central's public that may not be related to their places of home, work, or imagined spatial identity. So rather than a categorization of Brockley Central's

audience members by spatial identity – akin to a demographic approach to social identity – it gives an idea of where they are at certain moments as they move through the city – a way of thinking about socio-spatial distribution that is more akin to Urry's mobilities approach (Urry, 2007). That is to say that where people *live*, which can be dictated by factors like affordability and commute times, may say less about their participation in publics than where they *go*, which potentially involves a greater degree of individual agency.
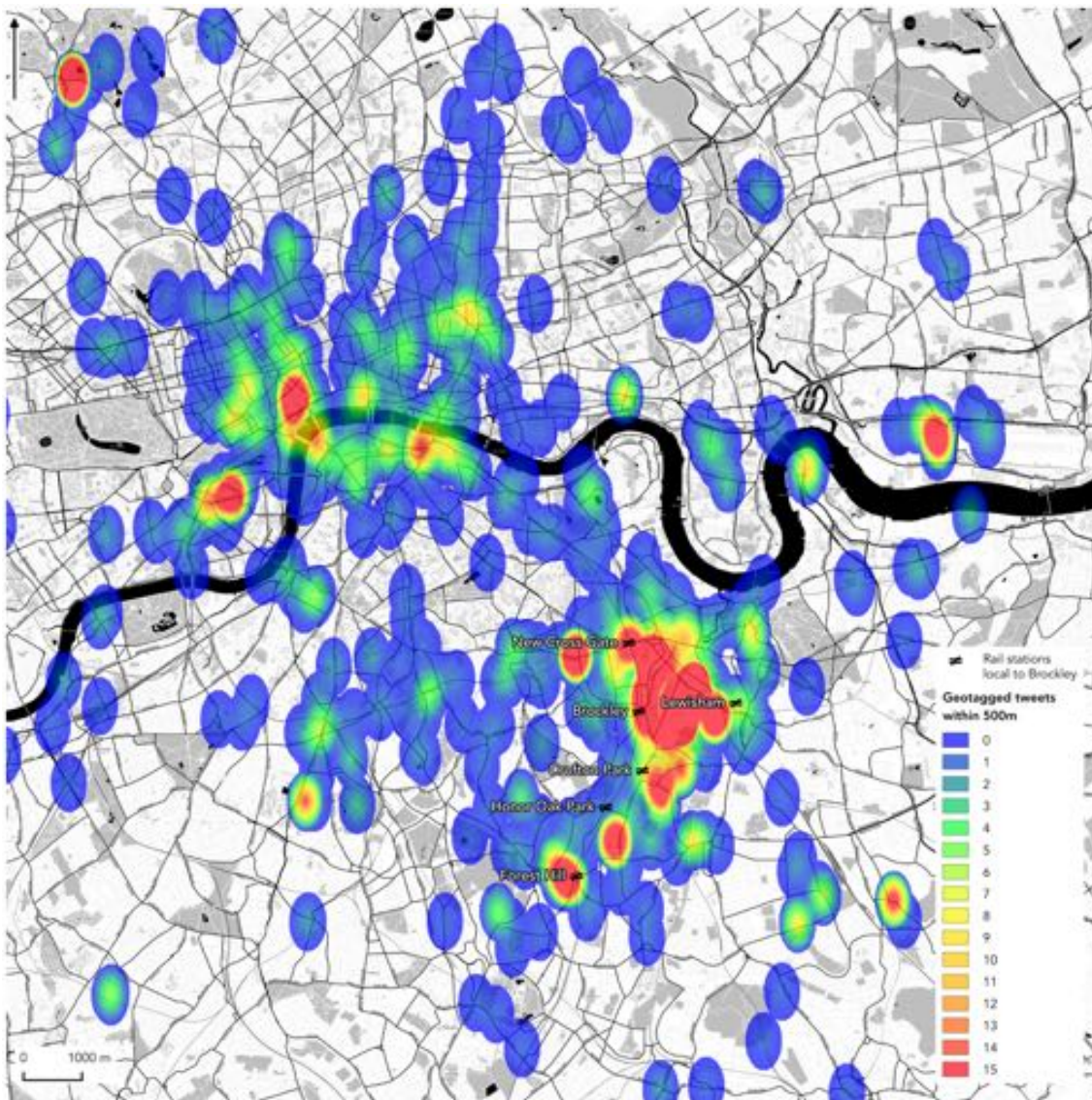
Figure 4.7: London-wide heat map showing distribution of geo-tagged tweets from @BrockleyCentral's followers within 500m of every point (self-defined locations from Twitter profiles). Sample taken 1-7 May 2013

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL
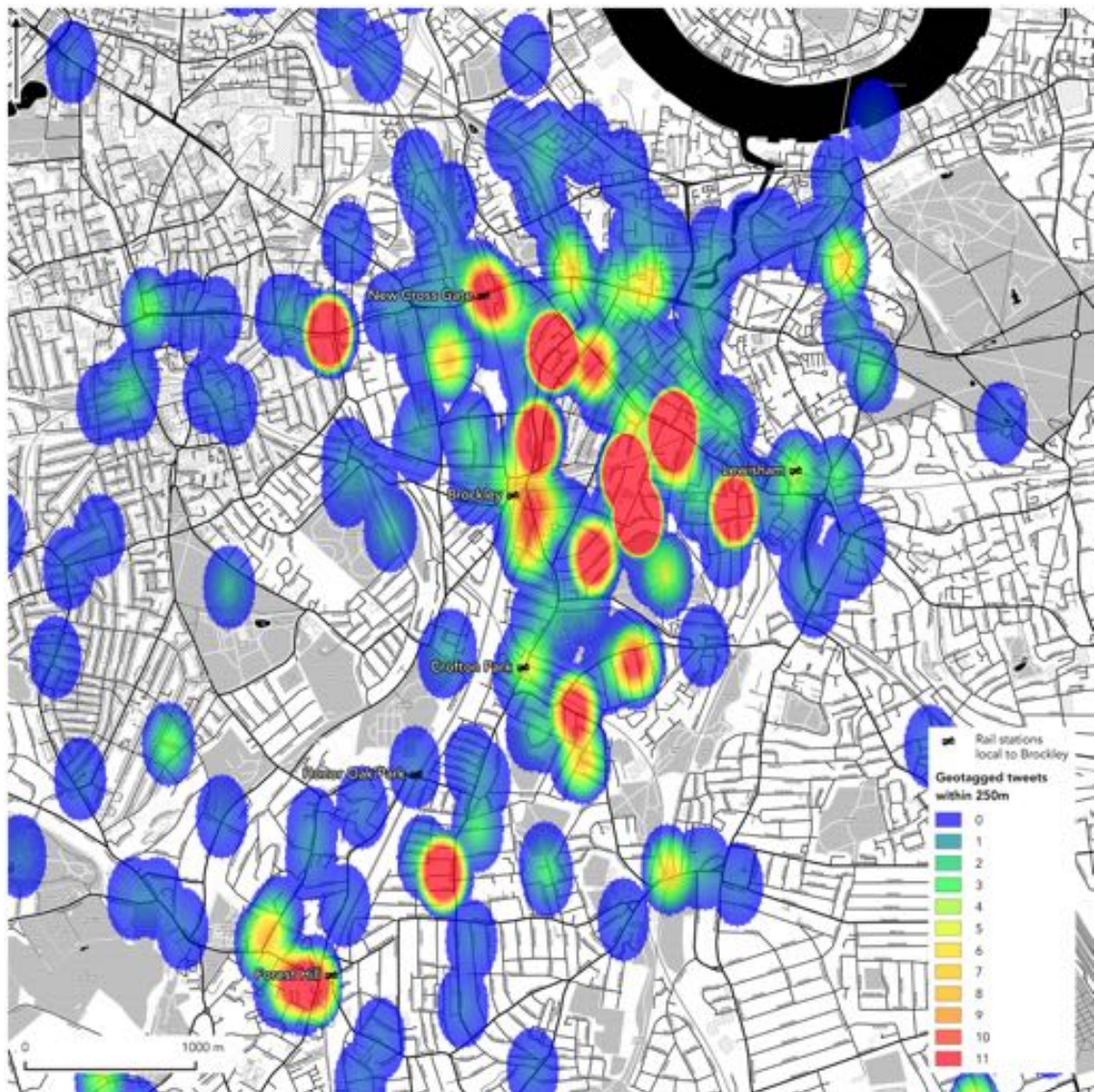
Figure 4.8: Brockley detail of heat map showing distribution of geo-tagged tweets from @BrockleyCentral's followers within 250m of every point (self-defined locations from Twitter profiles). Sample taken 1-7 May 2013

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

Geo-tagged Twitter data though also comes with its own issues. Usually only around 1% of tweets generally (a figure reflected in this sample) are geo-tagged, determined by a conscious decision by the user that sent them to enable this functionality. However this was mitigated to some degree in this instance by Brockley Central's publisher agreeing to post on the blog asking his readers to switch on their geo-location for a week to improve the data collection.[15] Also, even tweets that are geo-tagged do not necessarily represent a random sample of locations within the daily trajectories of these users – certain moments and spatial contexts tend to be popular for sending tweets such as cafes and public transport stops. Finally, geo-tagging is not

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[15] http://brockleycentral.blogspot.com/2013/10/brockley-foxes-wild-in-city.html

always 100% accurate, with margins of error often around 60 metres. Nonetheless, over the course of one week 2,524 geo-tagged tweets (1.7% of the total number of tweets) were collected from a total of 199 of @brockleycentral's followers. At the time it had 4,110 followers, meaning this constituted a self-selecting sample of 4.8% of its audience whose location was captured from a geo-tagged tweet an average of 12.7 times each over the course of one week. Once again, this can be thought of as an indication of this population's movements in space rather than a definitive picture, which for the purposes here is sufficient as an illustration of what it means to place a mediated public. Figure 4.7 shows a wide view of inner London, covering most of the tweets captured in the sample. There are two main constellations of activity: one focused around Brockley and the other around the City, West End and Shoreditch in central London, all of which are high employment locations. It is reasonable to assume then that these represent, respectively, the main residential and employment areas for Brockley Central's public, captured in the divide between daytime, and morning or evening Twitter activity. On closer inspection, some of the activity can also be explained by above-ground transport infrastructure: low concentrations of tweets are strung along several train lines running from Brockley, Crofton Park and Deptford into central London.

Figure 4.8 zooms in, to show the activity in and around Brockley. Here, the spatial divide of the train line, that has been evident throughout, is extremely clear. Representations of imagined location have all to a degree been mediated by a conscious idea of place: either on behalf of its publisher and his choice of issues or neighbourhoods to refer to; or Twitter users' locational self-identification. The use of space represents a more embodied reality. People in this sample, it would seem, rarely venture over the tracks into Nunhead and East Dulwich to the west, while members of Brockley Central's public are clearly present in New Cross, Deptford and Lewisham. Through this visualization it becomes possible to start thinking about the disembodied public sphere of framed issues and discourse, as described by Habermas and his many theoretical descendants, as formed by individuals that are located in and moving through space whilst operating in a mediated communication setting. It also becomes clear that this network does not entirely overcome physical space but is shaped by the boundaries to movement that it throws up, so that someone literally on the "wrong side of the tracks" is less likely to participate in Brockley Central's public sphere. These traces of the location of people in space that form part of Brockley Central's Twitter network build a spatialized virtual public sphere that is concentrated in Brockley and its immediately accessible (not necessarily proximate) environs but that shifts as its members concentrate in central London during the day, or travel around distant

corners of the city. It is a representation though that is very much from the point of view of Brockley Central. Each individual, at the point at which their location is traced, is also presumably participating in other publics, and indeed there is no guarantee that the geo-tagged tweets they are posting have anything to do with Brockley itself. The data presented here is a snapshot of the aggregated movements of people that are part of Brockley Central's Twitter network, but who at the moment their location was captured may be participating in a different public with its own spatiality. As Webber argues, "the spatial extent of each realm is ambiguous, shifting instantaneously as participants in the realm's many interest-communities make new contacts, trade with different customers, socialize with different friends, or read different publications" (Webber, 1964, p. 116). Again, the intention is not to come to any definitive conclusions about the specific patterns in the movement of this public but to show how Webber's suggestion of a non-fixed, shifting public realm of communication could be translated into an actual representation, that expands our notion of hyperlocality beyond the confines of a fixed region of place. It also, though, refines some of Webber's argument. He asserted that "social intercourse, which has never respected physical boundaries anyway, is increasingly [i.e. due to electronic communications, which at his time of writing meant the phone and television] able to ignore them" (Webber, 1963, p. 204). While he offers language to understand the relationship between the concrete space of hyperlocal place and the shifting, but still real, space of the hyperlocal public sphere, this is a classic example of the non-spatiality that has permeated communication theory. Hopefully what is hinted at here is that the virtual public sphere can bridge across space, to allow for mobile participation in a hyperlocal public sphere, but it is still realized in space, albeit at a larger perceptual scale than the immediately visible neighbourhood lifeworld, and is shaped by certain spatial conditions such as accessibility and segregation. This hint is a suggestion for further research about exactly how and to what extent this process takes shape, in line with the aim throughout this research to provide more nuanced concepts and methods for placing media and its publics.

What becomes even more complicated is the realization that, as Twitter activity is so concentrated in certain locations, many participants in this public must be physically proximal, or even co-present, whilst performing their spatial identity online. All followers of Brockley Central are connected at one remove on Twitter, yet this connection is materially invisible even in spatial proximity. This strange disjuncture relates to the dual meaning of virtual proposed earlier. People regularly sharing space but without communication are *potentially* socially associated constituting a "virtual community" of unrealized social contact through pure, unmediated co-presence, *without* unmediated

communication. Simultaneously, those same people entering into a network of Twitter followers connected by Brockley Central constitute a virtual public of pure communication around a common interest (Brockley) that does not rely on physical co-presence. As a thought experiment, imagine one individual is a regular user of Brockley train station, and tweets daily whilst waiting on the platform. The regular physical presence in that space of a body, emerging from habitualized trajectories through the city, performs a physical identity of a member of the public in Brockley's public space, requiring no discursive communicative action. Simultaneously non-verbal, discursive communicative action carried out via the embodied capability of writing on a smartphone can perform to other people in the communication setting of Brockley Central's Twitter network specifies a mediated local identity in Brockley's public sphere. Each of these forms of virtuality has very different implications and very different ways of becoming realized. This raises the possibility for a fundamental re-framing of the language around communication technology and cities. With the spatial turn in theory, the mediated public has often been thought of as a virtual space that overlays the material space of the city. Here it is being proposed that one individual can simultaneously perform themselves as member of Brockley's public in two different ways via different practices, drawing differently on their bodies, subjectivity, and communicative abilities.

4.4. Conclusions

4.4.1. Placing Media

Whereas hyperlocal had previously been represented one-dimensionally in pinpoint locations that fail to represent their extent and concentration in space, this chapter has demonstrated means for placing media geographically. The *imagined region* of any media source, given by the translation of its self-definition into a flat and clearly bounded geographical territory, is a quick means to get an idea of the spatial extent of different hyperlocal channels, or indeed any form of media specifying itself geographically. This kind of representation is stable, in that it is not affected by changing patterns of issue coverage, but in being so it is somewhat detached from the reality *in practice* of territory-formation and falls short of theories of the public sphere holding that they shift and overlap as communicative practices and issues change. Issue mapping is a slower and more laborious but more detailed means of representing the spatialisation of online media that fits with convincing theories of the way places are performed through the framing of stories. Issue mapping suggests that the hyperlocal public sphere is generated by spatial controversies, and in being so is constrained by the distribution of those controversies, giving a grounded way to describe and plot media in spatial terms. When seen as a set of location-specific

issues, the hyperlocal public sphere can be described spatially as being concentrated around the topological centre of the neighbourhood and extended unevenly in various directions that respond to spatial conditions, being concentrated along topological links with that centre and less present across spatial boundaries. Extending this method to hyperlocal blogs across a whole city could become a valuable way to highlight gaps in coverage by hyperlocal media at a level of granularity that pinpoint locations and even imagined regions cannot, and also reveal places where communicative resources are concentrated in the overlaps between hyperlocal public spheres.

4.4.2. Placing Publics

It remains very difficult to map audience data for a website at the neighbourhood-level granularity that is of interest to this research. For the purpose of conceptually illustrating the way a public is formed transpatially through communication, Twitter followers are a good proxy as they have a stable mediated connection to the blog and form a delimited population that can be analysed. The public for a hyperlocal blog has been seen to occupy a realm that is much larger and less continuous than the region of the blog itself. In this sense a public is transpatial, in that it consists of individuals that can be assigned locations in space, but do not necessarily share a geographical space. Transpatiality has been linked to virtuality, in that it operates purely through communication, and so the realm of the blog's public *can* be thought of as a virtual space formed of communicative links between locations that are not immediately connected, and therefore a space that co-exists with many other virtual realms. The locations of individual members of publics can also, like the region of the blog, be thought of as being either imagined, meaning they are stable and self-determined, or traces built up through use of space in practice. In both cases, Brockley Central's public is not limited to the neighbourhood itself, in the model of the anthropological community in which identity corresponds with space, but instead demonstrates the non-correspondence of publics for hyperlocal media and the territory of that hyperlocal media. However, use of space in practice at a very local scale also reflects spatial connections and barriers. The train line through Brockley created a divide across which members of Brockley Central's public rarely crossed, suggesting that this socio-economically and spatially distinct part of the neighbourhood was less likely to participate in its public sphere. In the following chapter, the nature of the public realm of Brockley Central's Twitter followers is investigated further using network analysis to demonstrate the role of such spatial connections and divides in network building and the way the network manifests physically in the neighbourhood, and theories of the public are expanded upon with reference to the pattern of networked connections.

5. Method 2: placing a hyperlocal social media network

5.1. Introduction

Building on the use of data on Brockley Central's Twitter followers as a means to place its public, this chapter presents and analyses the network of connections between those followers. A network graph of connections between all Twitter profiles following @BrockleyCentral is built and its structure analysed, alongside a critical reading of the meaning of those connections and their patterns. This reading supports the argument that a hyperlocal social media network is better described as a networked public than a community, and how that differs from the common imaginary around the value of social media for neighbourhoods. It emerges that the Twitter profiles of local businesses following Brockley Central are key actors for the formation of publics and the distribution of stories posted on the blog, leading to the suggestion that businesses are an important interface between the mediated hyperlocal public sphere and the spatial public realm of the neighbourhood. As features of the physical environment and actors within the mediated public, businesses both generate and distribute issues, meaning that publics form around them without always requiring direct connection between individual people. This role is used to illustrate theories of how publics are formed in the city. Further, as businesses can be placed geographically at specific locations they create the opportunity for a novel method in which some data from Brockley Central's Twitter network is presented cartographically, showing that networked connections are concentrated in clusters that relate to spatial proximity in more detailed ways than has been shown in other studies.

5.2. Background and Related Research

A nuanced analysis of spatial and network characteristics of a hyperlocal Twitter feed is valuable in qualifying the common assumption that Twitter's protocol for communication between strangers means that it can be seen as a new "public space" or "agora" (Kirk and Schill, 2011): in other words that it is non-hierarchical and flattens communication positions. Nick Couldry, in his discussion of the meaning of 'social' in social media, touches upon its "spatial configuration": "instead of distributing the same content out to 'everyone' as mass broadcasters have done, they provide online 'platforms' (Gillespie et al., 2014) where 'anyone' can interact with anyone else. Such interactions, broadly, follow whatever path people choose but, as Marx would have put it, not in conditions of their own choosing" (Couldry and Dijck, 2015). This imagines social media as a transformation of communicative flows from centre-to-periphery to all-to-all, which could be interchanged with the spatial description everywhere-to-everywhere. It supposes a profound social transformation – who communicates with who – but also a geographical one – where information is produced and consumed. In

a hyperlocal context this could be imagined as the shift from newspaper offices and local radio broadcast stations having a monopoly over the framing of localized issues, to a situation in which neighbours produce information for one another, shared directly via Twitter following relationships. Like the Smart Citizen imaginary critiqued in section 2.9, such a reading tends towards the logical leap that the means to connect through media guarantees to the ability and willingness to do so.

A small number of studies have made specific attempts to qualify this everywhere-to-everywhere doctrine by tracing the role of space, and specifically proximity, in shaping Twitter networks, but so far only at an inter-city scale. Quercia et al. (2012) took London as a geographical starting point and found that distance was a key factor in tie formation: most users formed personal networks that favoured users in the same or nearby cities. This was very much a statistical study, taking a large number of Twitter users as starting points and automating the identification of the locations of their followers. As such it is very useful in establishing evidence for the importance of proximity for Twitter following relationships, but not so much for digging into the particular protocols that underpin the establishment of these relationships and characterising the type of public sphere they constitute. A separate study undertaken in Melbourne, Australia, takes a more qualitative approach and in doing so provides some indication of why proximity could be at play in mediated social networks (Loureiro-Koechlin and Butcher, 2013). Following individuals' formation of Twitter relationships over time it found that whilst Twitter offered the opportunity to initiate one-way links in a spatially-uninhibited way (which are not, in this study, seen as social ties), the development of these relationships into weak social ties and the maintenance of those ties was based on a shared awareness of events and places enabled by geographical proximity – in the case of that study, rugby-related events in the city of Melbourne. Loureiro-Koechlin and Butcher attribute the development of loose networks – identifiable by weak yet sustained interactions such as replies and retweets between users – to the *convergence* of the separate commonalities of location and interest, or what have been described here as spatial and transpatial characteristics. They describe these sustained networks as personal ("egocentric") communities, identifiable from the point of view of their research participants. Though ties are weak, locally-specific knowledge and cultural understanding are shared interpersonally and as such social capital is in play. Where individual relationships progressed further, to the full reciprocity and personal disclosure that characterize stronger friendship bonds, geographical proximity became even more key for their participants, as regular face-to-face meetings were required to sustain a relationship.

This chapter adds to and builds upon these three starting points. It challenges the assumption that Twitter, and its inherent capability for peer-to-peer information pathways (in the form of following relationships), *necessarily* leads to the complete reorganisation of information flow from centre-to-periphery to everywhere-to-everywhere (or everyone-to-everyone). If we were to follow that logic, we would expect that everyone following Brockley Central on Twitter, who here we assume are part of a public but in other accounts are thought of as a virtual local community, would also follow one another so they could share information directly rather than rely on a central point. Below it will be clear how much this is *not* the case. Given proximity has a role in the formation of individual Twitter networks at an intercity scale, it asks whether patterns in the connections that do exist can be observed in relation to spatial characteristics at the granular scale of the neighbourhood. Finally, it asks what protocols underpin and structure the formation and use of Twitter relationships. In order to do all this, it takes the single profile of @brockleycentral as a starting point, following relationships out from there to map the structure of what, following the previous chapter, we could call a *networked hyperlocal public.*

5.3. Data Gathering

A social network can be represented as a graph of connections, consisting of *vertices* representing individual Twitter profiles, and *edges* representing following relationships in either direction between vertices. Figure 5.1 illustrates the constituents of a social network, and also indicates the approach to network data visualisation throughout, which uses scales of size and colour to denote different values for each node. Brockley Central's network of Twitter followers is a graph that comprises a set of interconnected vertices linked by one edge to the profile @BrockleyCentral (@BC from here for brevity) plus all the edges between them. This is also known as @BC's *egonetwork*: a term derived from the network sociology field that sees social relations from the point of view of an individual, with all their 'friends' and the friendships between those friends forming their social world. An egonetwork could likely be traced from an individual profile to encompass almost the entire user base of Twitter, but for the purposes of this research stops at one step remove from @BC, meaning that every profile in this network shares in common the fact that it follows @BC and can therefore be considered part of the networked public for @BC. What is referred to here as @BC's network then is a subset of the entire network of all Twitter users rather than a standalone group. As suggested previously, the network approach to sociology suggests that there can never be a definitive line drawn around social groupings, and localised networks will always be connected to and embedded in a wider networked social world.
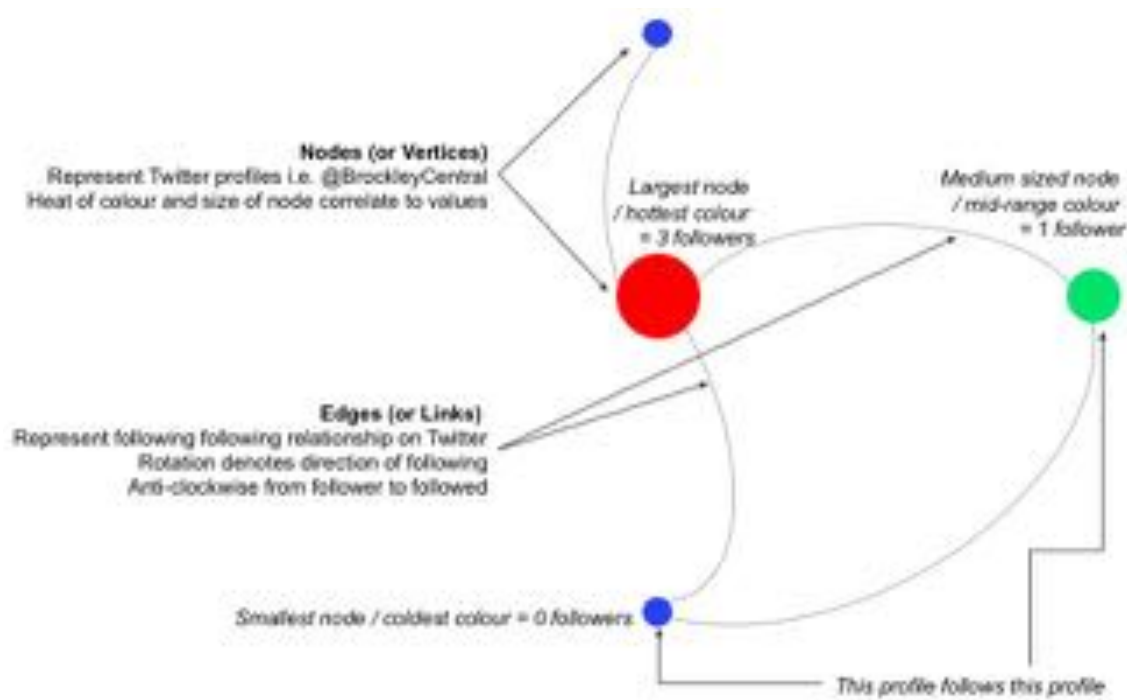
Figure 5.1: Hypothetical network graph of 4 nodes and 4 edges demonstrating approach to Twitter network representation and data visualization throughout this section

Data pertaining to @BC's egonetwork were retrieved, as described in Bingham-Hall and Law (2015), by querying Twitter's API on March 26th 2014, identifying 5,592 registered Twitter users that followed @BC. This was a snapshot of following relationships at that time, and the network has continued to grow since (it has 8,342 followers at the time of writing). For every one of these 5,592 users, their full list of followers and 'friends' (defined by Twitter as someone they follow) was downloaded where publicly available. A graph was then constructed of all connections, and finally any users not directly connected to @BC were removed to leave only its egonetwork at one remove. Figure 5.2 illustrates this two-stage process: at first data is collected for all Brockley Central's followers and its followers' followers. Secondly, all those not directly connected to Brockley Central itself are removed. Within the lists of followers of each of its followers are other profiles found to be followers of Brockley Central, and when importing the network data into network analysis software a link is created between these. The result is an egonetwork of profiles that are *all* connected to Brockley Central, and of which *some* are connected to one or more other profiles too.
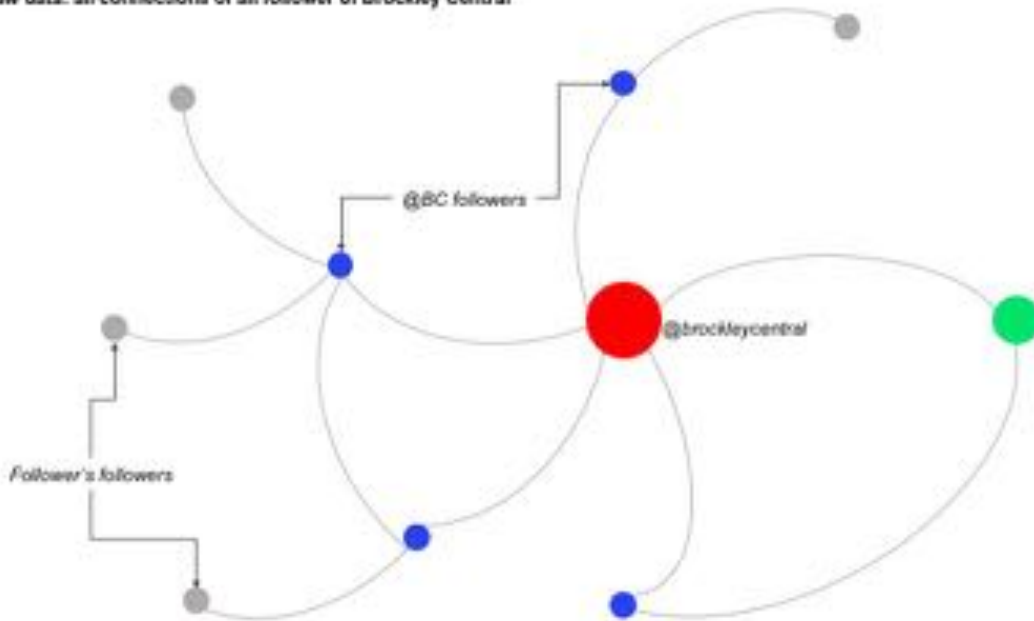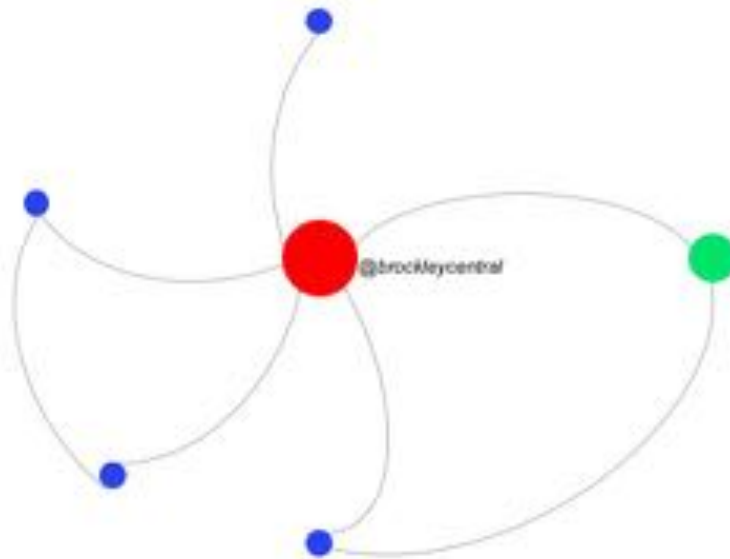
Figure 5.2: Constructing a network from Twitter data (adapted from Bingham-Hall and Law, 2015)

5.4. Data Analysis

5.4.1. Network measures

Analysis of the network graph was carried out with the network software Gephi (Bastian et al., 2009), producing various statistical values describing its structure. The keys ones used in this research are as follows. For every profile, the fundamental value produced is its *degree*: the number of edges it shares with other vertices in the graph. The

clustering coefficient measures average probability that the neighbours of any vertex are themselves neighbours (Watts and Strogatz, 1998). In terms of Twitter, it is the probability that any two connections of a particular Twitter profile are themselves connected to one another. This metric ranges from 0 to 1 where 0 represents no connection among its neighbours and 1 represents all the neighbours are themselves neighbours of one another. In Bingham-Hall and Law (2015) the average clustering coefficient is used as a global metric to describe the entire network, defined by Watts and Strogatz as the proportion of actually existing edges compared to the total number that could exist, were all nodes connected to one another. So in terms of a social network, they analogise average clustering coefficient to the "cliquishness of a typical friendship circle" (Watts and Strogatz, 1998, p. 441). This is normalised to give a result between 1 and 0, where 1 would represent every vertex in the graph being connected to every other – a total community in which everyone knows everyone – and a result of 0 would represent a single hub vertex connected individually to many vertices with no direct connection to one another – pure broadcast with no peer-to-peer connection. Analysis was carried out for the entire egonetwork; for the egonetwork minus the 5% of its users with the highest degree value;[16] and for sub-graphs comprising closely linked vertices partitioned by community detection analysis. Community detection looks for "the appearance of densely connected groups of vertices, with only sparser connections between groups" (Newman, 2006, p. 8577). The community detection method used here partitions the graph into groups by detecting vertices with similar connections using a quality function called modularity, the formula for which is given and described in more detail in Bingham-Hall and Law (2015). Applied to @BC's total egonetwork, modularity analysis resulted in eight *modularity classes* each representing a sub-graph of vertices that share more connections with one another than they do to vertices outside their modularity class. Some comment will be made on the basis on which these smaller 'communities' (allowing for the word here as a network term identified specifically in this form of analysis rather than as an interpretation of the type of social relation it entails) are formed within the larger network of Brockley Central's nearly 6000 (at the time of analysis) followers.

5.4.2. Identification of profiles

In order to understand better who has the most privileged communication positions in @BC's network, the profiles with the 5% highest degree values were taken as a sample. For 290 profiles with degree value greater than or equal to 272, detailed

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[16] The cut-off point here could vary and would produce similar results. It has been chosen to highlight the extreme skew of connections in this network to a very few most connected profiles i.e. the top 5% of the network.

qualitative information was collected. Each profile was categorized and where possible related to a pinpoint geographical location. Twitter profiles do not include machine-readable data showing the type of entity they represent (individual, business, organization, media outlet and so on) or, as discussed previously, an instantly machine-readable location. Therefore, this information had to be created manually, based on public information and web links displayed on Twitter profile, through comprehensive first-hand knowledge of the study area gained by long-term involvement through the research, and with the use of online search to find businesses' websites for example. Clearly this process will be imperfect: user types were chosen for illustrative processes, to suit the dataset rather than according to any established method and location information was recorded to the most specific degree possible. For most profiles this meant a city, neighbourhood or borough. Wherever possible though a full postcode was recorded, usually where the profile represented a business with a single street address and by locating its address on its website. Full UK postcodes provide a satisfactory level of accuracy for this undertaking and are commonly used to pinpoint location data. Commonly London postcodes contain just a few buildings, or even one building with several addresses for separate residences or businesses (Office for National Statistics, 2010). So whereas the postcode area SE4 is a marker of spatial identity for the whole of Brockley, a full postcode (i.e. SE4 2RW) pinpoints a single location (in this example the train station). Of the 290 profiles characterized in this way 79 could be assigned full street addresses, and their postcodes were geocoded in the same way described in the previous chapter, allowing them to be plotted on a map and combined with data from the network analysis.

5.5. Analysis Results

5.5.1. Following

Table 5.1 shows network values generated by the analysis of the total graph centred on @BC and containing all its followers and their interconnections. In a total community in which every member of a bounded social network knows every other – a kind of online version of Tonnies' ideal *Gemeinschaft* – all vertices would have a degree of just over 11,900: one outbound and one inbound for every other vertex. This would never be likely to happen in a social network, but it still offers a stark point of comparison to this network in which the mean degree is just 71. In other words, the average follower of Brockley Central has just 71 friend or follower relationships out of the 5,951 other profiles within the network. Over 75% of its followers have fewer than 66 connections, and over 50% have a maximum of 26. This is a highly uneven distribution then, with a

small minority of highly connected profiles with degree values of 1000 or more, and vast majority with very few connections to other @BC followers.

@BC-centric graph			
Nodes	5,952	Average Degree	70.53
Edges	209,903	Average Clustering Coefficient	0.480
Connected Component	1	Diameter	2

Table 5.1: Descriptive statistics for @brockleycentral egonetwork

5.5.2. Clustering

This minority of highly connected profiles are not only the most followed, but they also tend to follow one another. This mutual interconnection is quantified by the *clustering coefficient* value, which has been described as the degree to which members of a social network know one another and form a "clique" (Watts and Strogatz, 1998, p. 441). Networks with high average clustering coefficients can be thought of as "small worlds", a sociological phenomenon with a rich theoretical tradition of its own but which in a social network suggests that information is able to spread quickly throughout the whole system. @BC's entire egonetwork has an average clustering coefficient of 0.48 which is very close to that recorded by Watts and Strogatz in several examples displaying small world characteristics. However, this is largely guaranteed by the presence of @BC as a central node. Even the most disconnected vertices are only two steps away from all others via @BC. What we are interested in here is the degree to which individuals in this network connect to one another, which becomes clearer once @BC is removed. Without this the coefficient drops to 0.27, suggesting a network that is still effective at spreading influence but where the web of connections is much looser. Zooming in further to take the top 5% most connected profiles as a network in themselves, we see that most of the interconnection comes from this clique. The network formed by these 289 profiles (the top 5% by degree value minus @BC) has an average clustering coefficient of 0.40: barely any less strong than the entire network when @BC is included as a central node. So we start to have a picture of @BC's most connected followers as a small, tight clique of densely interconnected profiles that do not rely on @BC to hold together their network (figure 5.3). Surrounding this is a large mass of profiles that follow members of this dense core but have very few connections to one another (figure 5.5).
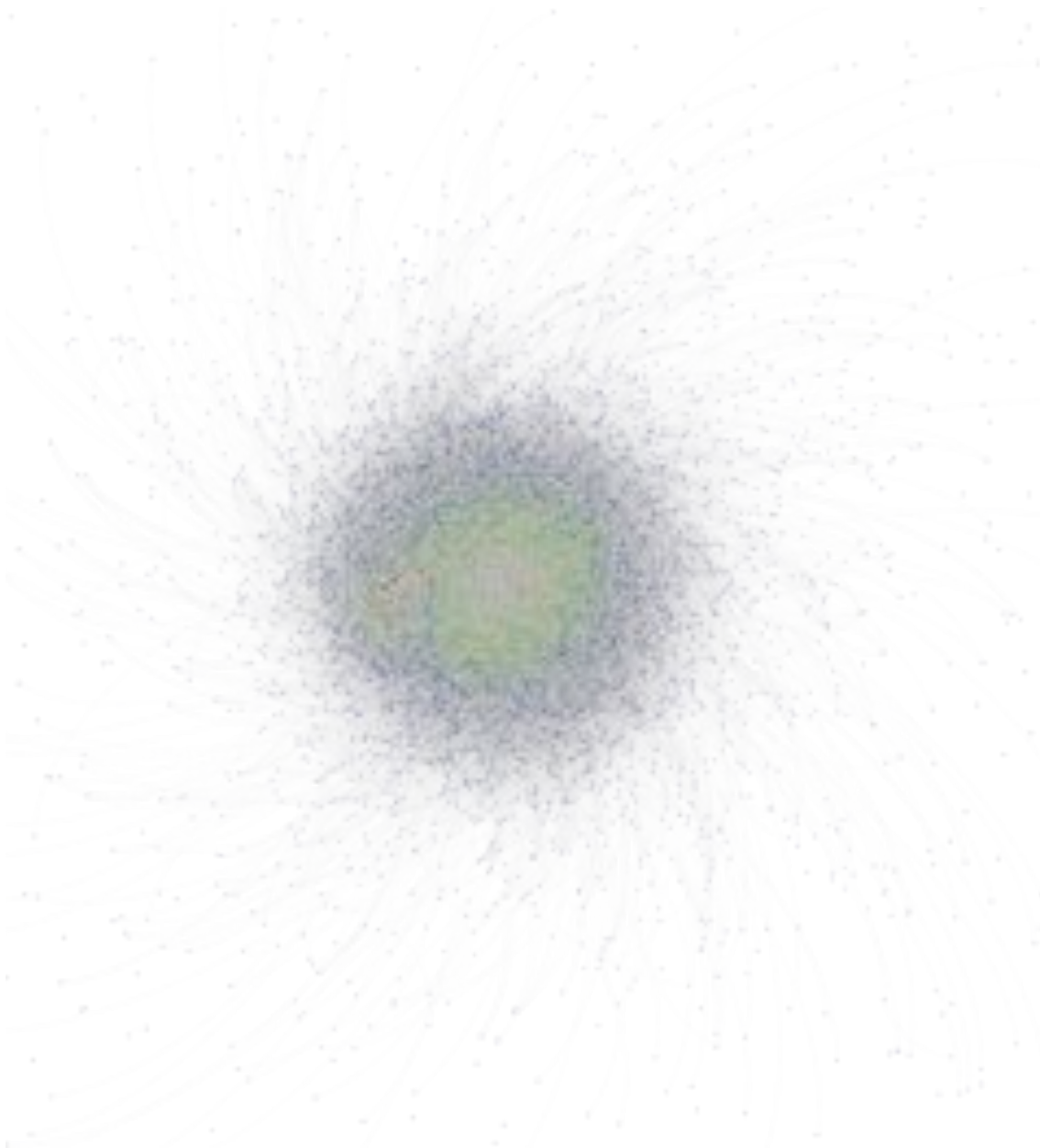
Figure 5.3: @BC egonetwork graph with hotter colours and larger nodes representing higher degree values: full network (some outlying nodes are cropped to allow better visibility of the centre of the graph)

How does this reflect then on Couldry and Dijck's imaginary of the new spatial organization of media that has become social? We do not have a situation in which information flows laterally from all to all, which we might think of as the imaginary of social media as the return of *Gemeinschaft* in localized communications. Neither, though, is it a situation in which one or two outlets – what Couldry has elsewhere called the "mediated centre" (Couldry, 2005) – broadcast vertically to a mass audience that has no lateral channels of communication between them, which is the traditional modernist notion of media criticized by Calhoun (1998) and to which Twitter has been seen by commentators like Couldry as a panacea. Instead it is something of a mix of the two. The "mediated centre" here is a group of Twitter profiles that are connected to

one another and can spread information rapidly amongst themselves, with a large audience of onlookers that follow members of this group but *not* one another. This places the ability to communicate to a Brockley public firmly in the hands of those within that clique, and makes it much harder for those outside it.
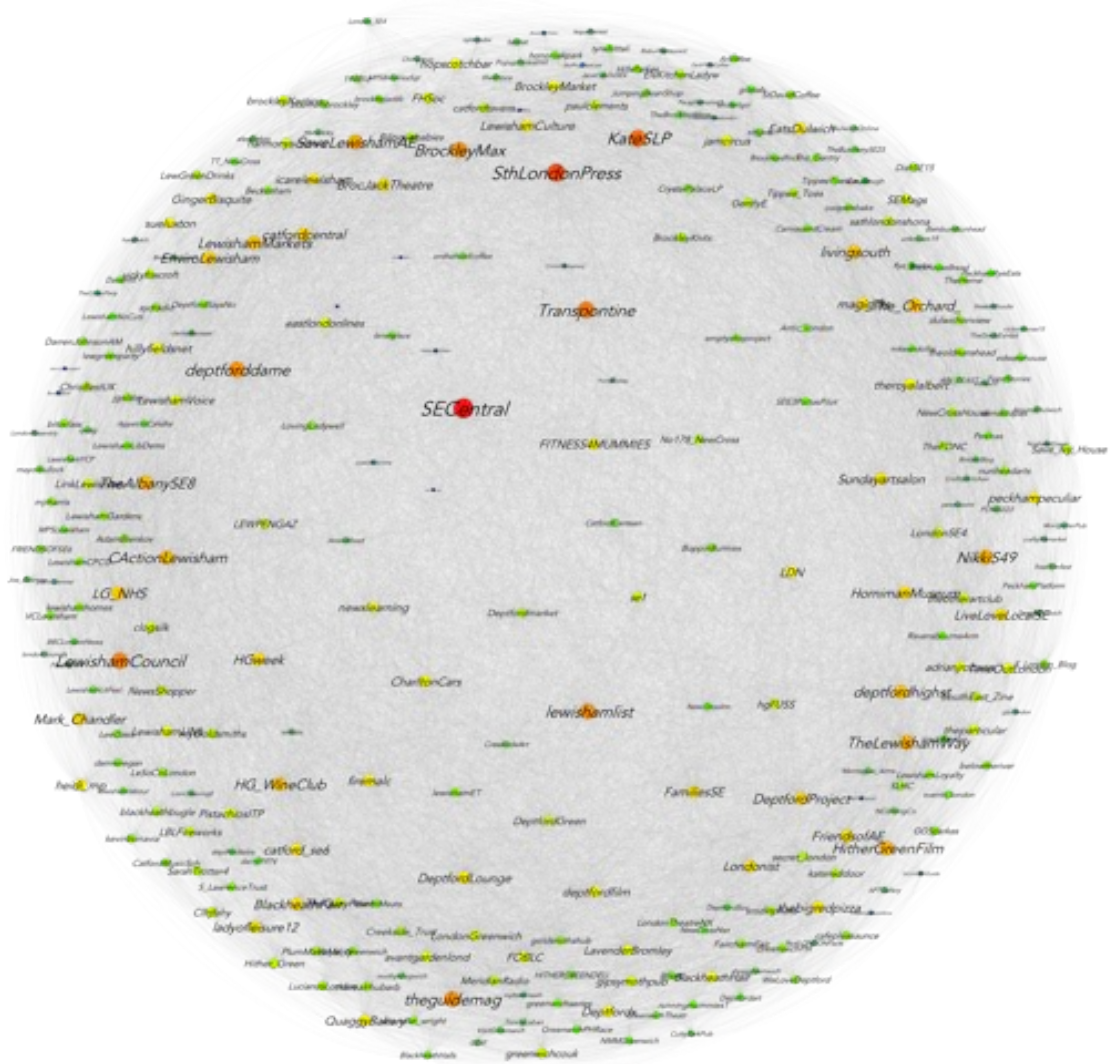
Figure 5.4: @BC egonetwork graph with hotter colours and larger nodes representing higher degree values: top 5%
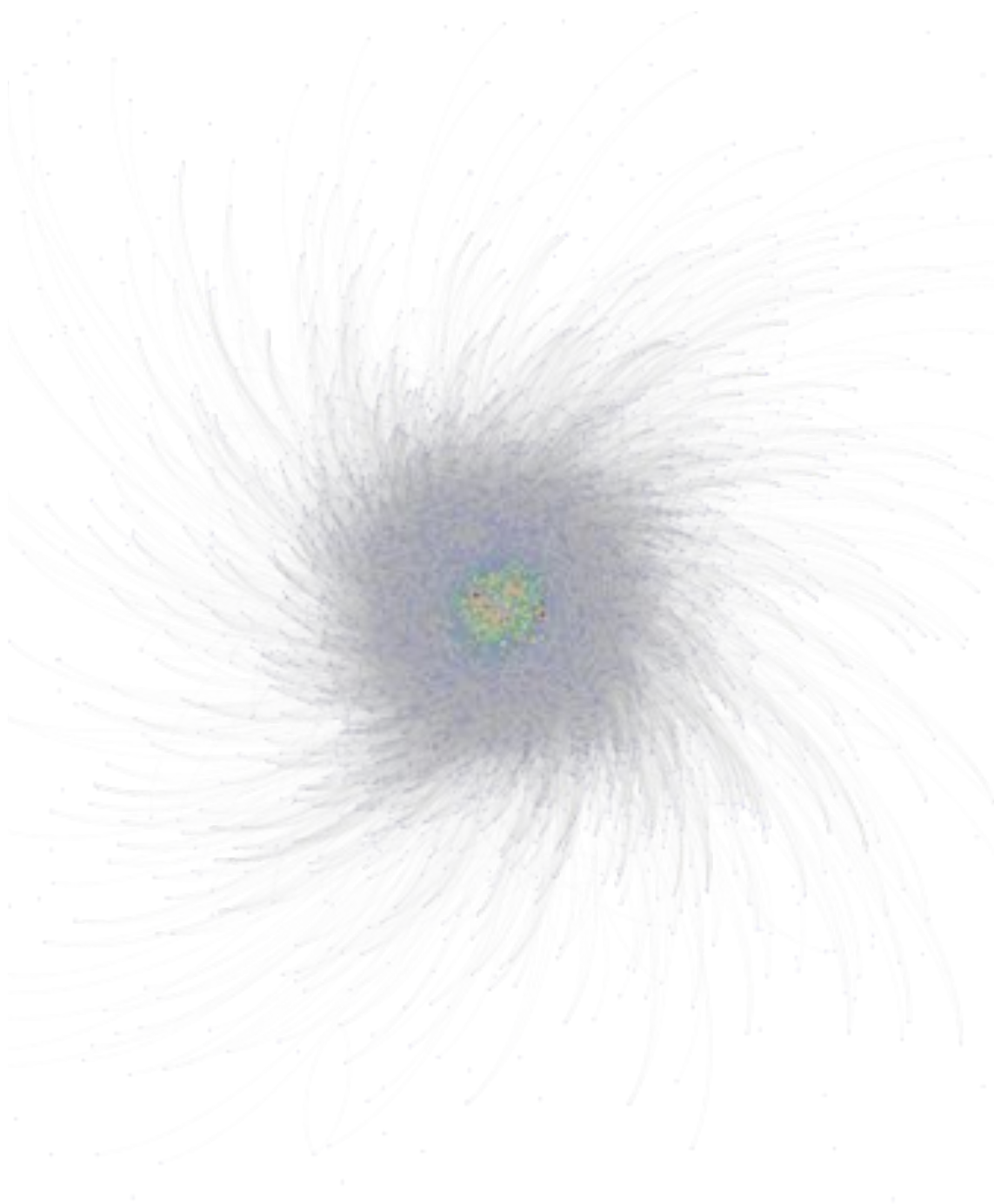
Figure 5.5: @BC egonetwork graph with hotter colours and larger nodes representing higher degree values: bottom 95%%

5.5.3. Identification and location of the network core

The categorisation and placing of this sample of the top 5% most connected profiles shows that the mediated centre of @BC's networked public sphere is largely occupied by local businesses, and particularly businesses that are also located at the ('unmediated') spatial centre of Brockley. Table 5.2 shows the first 20 profiles in descending order of degree value to demonstrate how they were categorized at two levels of accuracy (for example as a business in a primary order category, and then as a restaurant at a secondary order) and located as specifically as possible.

Profile	Degree	Type	Sub-type	Geo Scale	Address
BrockleyMarket	2275	Business	Market	Brockley	SE4 1UT
LDN	2267	Media	Guide	London	
Londonist	2033	Media	Guide	London	
SECentral	1979	Hyperlocal	Forum	South East	
TimeOutLondon	1927	Media	Guide	London	
LewishamCouncil	1757	Local Authority	Council	Lewisham	
SaveLewishamAE	1652	Community	Campaign	Lewisham	
SthLondonPress	1528	Media	News	South	
Transpontine	1517	Hyperlocal	Region	South East	
BrockleyMax	1504	Culture	Festival	Brockley	
secret_london	1490	Media	Guide	London	
jamcircus	1486	Business	Pub	Crofton Park	SE4 2BT
HornimanMuseum	1485	Culture	Museum	Forest Hill	SE23 3PQ
The_Orchard_	1482	Business	Restaurant	Brockley	SE4 1LW
deptforddame	1358	Hyperlocal	Area	Deptford	
DeptfordProject	1205	Business	Cafe	Deptford	SE8 4NS
LG_NHS	1201	Services	Health Beauty	South East London	
se1	1188	Hyperlocal	Postcode	Southwark	

Table 5.2: Example categorisation and location of Twitter profiles

Businesses make up the largest group within this network core sample, of which the majority are pubs, cafes, restaurants, and retail (see figure 5.6). All of these are public-facing bricks-and-mortar spaces that communicate their brand identities via frontages onto public space. Businesses are also, however, organisations of people. They are formed of individuals that occupy those public-facing physical spaces daily *and* communicate via Twitter. As we have also seen, such businesses in Brockley are located along the main road that is the most connected in the area and links several sub-centres together. Their centrality to communication within this network, then, reflects both a spatial centrality and an ability to use that privileged spatial position to broadcast an identity via signage, making them recognisable landmarks along what has been described above as the most public of public space in Brockley.

All profiles
- Business
- Individual
- Community
- Hyperlocal
- Media
- Culture
- Political
- Education
- Services
- Local Authority
- Misc

Individuals
- Blogger
- Journalist
- Councillor
- Unknown
- Council Candidate
- Designer
- Police
- Author
- Other

Businesses
- Pub
- Café
- Restaurant
- Food retail
- Retail
- Market
- Health & Beauty
- Food van
- Food production
- Supper Club
- Cinema
- Car
- Loyalty Card
- Pub Chain
- Cleaner
- Estate Agent
- Loyalty Scheme

Figure 5.6: Pie charts showing make-up of types within categorised samples

Legend

Total degree

7351

1
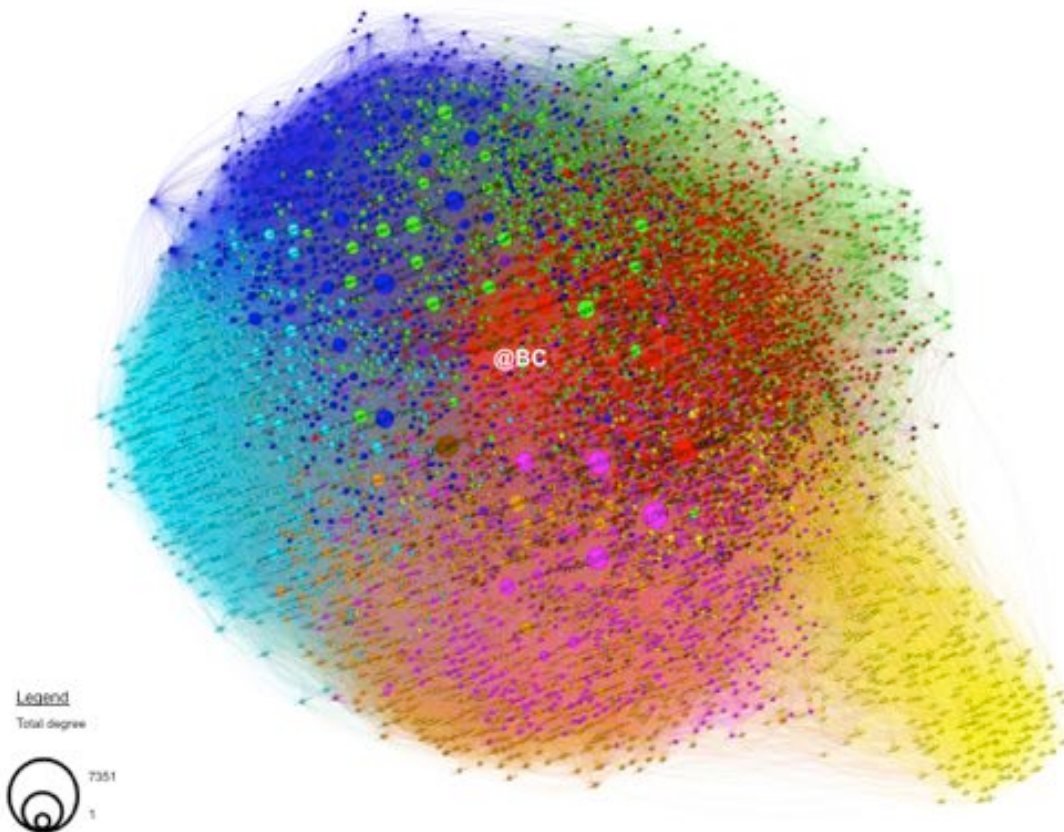
Figure 5.7: @BC total egonetwork with nodes grouped spatially and by colour into modularity classes or "communities"

128
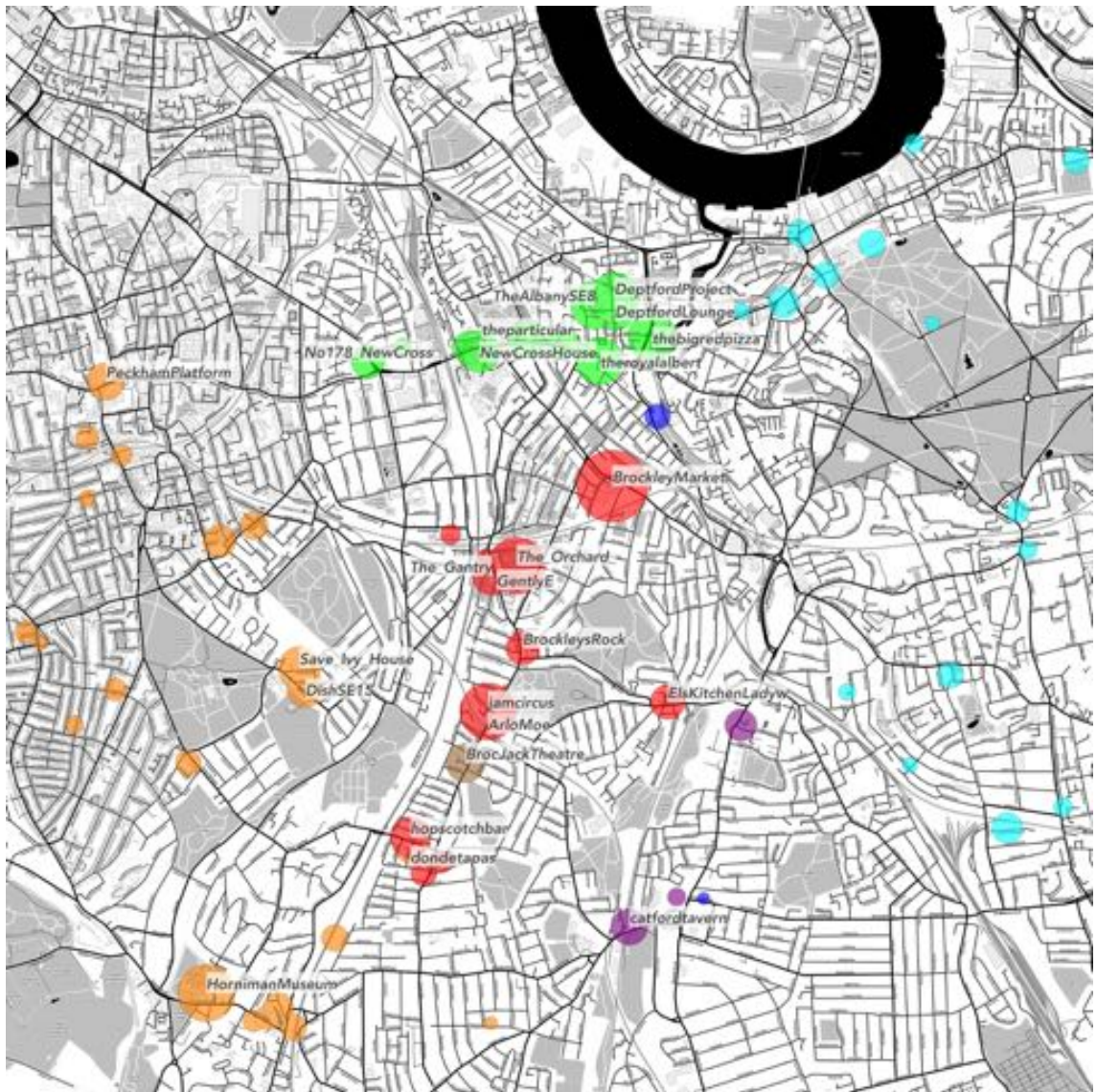
Figure 5.8: Twitter profiles with specific locations represented geographically, coloured according to modularity class and sized according to number of followers, showing concentrations of following between proximal businesses and the most connected businesses in the centre of Brockley. Locations are based on postcode centre points, which in this instance give a satisfactory level of locational accuracy with a maximum of around 100m error in a map covering an area around 8x6km.

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

Businesses, as stable spatial entities, also have publicly-available postcodes and can be plotted at pinpoint locations. They offer the opportunity to explore the placement of @BC's Twitter network in a way that other kinds of actors – media outlets and local authorities for example – cannot. This placement reveals a strikingly spatial pattern to the formation of network clusters, or modularity classes. To recall, modularity classes are sub-sets of profiles created by partitioning the network graph to create 'network communities' of vertices that share particularly dense sets of connections. Figure 5.7 shows the @BC egonetwork graph with each node on a scale of size according to its degree value, and coloured in groups representing modularity classes. Figure 5.8

shows the same logic transferred onto a map of Brockley, retaining the same colours for modularity classes, for the profiles that could be matched to full postcode locations.

Figure 5.9: Twitter profiles with specific locations represented geographically, coloured according to modularity class and sized according to number of followers, with selected images of facades.

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

What is initially striking is that four geographical clusters of nodes sharing the same modularity class can be identified: red in the centre of Brockley; orange in Peckham and Nunhead; blue in Greenwich and Blackheath; and green in New Cross. The community with the most highly connected profiles (in red) is located mostly around the station and along the main road running north-south through Brockley, that was shown in section 3.2 to be the most easily accessible street from the centre of Brockley. Businesses along Brockley Road are an ideal example of Loureiro-Koechlin and Butcher's *converging community*. Not only are these businesses in close proximity – in terms of angular closeness rather than metrically necessarily – but that proximity is a

spatial relationship that is fixed, stable, and highly visible. Individual people, on the other hand, even if they live close to one another, are mobile and fluid in their spatial relationships, and private about their location, making it harder for the geographical aspect of converging community to play out through online profiles (this will be evident from the anecdotal evidence in the next chapter). Brockley businesses are *also* an interest group. They share identities as Brockley traders, but more powerfully a common goal of promoting the area and increasing footfall along the high street. It is in their mutual interest to promote one another by fuelling the circulation of stories posted by Brockley Central about new businesses in the area, increasing its reputation as a destination. The result of this is observable here in the form of a tight network of following relationships between these neighbouring businesses. In the following chapter anecdotal evidence from interviewees will reinforce this, showing that the addition of publicly-visible mediated communication between businesses to their spatial proximity helps create a sense of coherence and perform Brockley as a place.

The network communities to the west, in Peckham and Nunhead, and east in Greenwich and Blackheath, are geographically sparser than the one centred around Brockley Road. This is not an absolute representation of businesses and any other physical locations that might be represented on Twitter in the area, but a geographic view of @BC's egonetwork that is focused on Brockley. From this perspective, businesses in Peckham and Nunhead are more connected to one another than they are to businesses located on Brockley Road, even when metrically or 'as the crow flies' they may be closer to the latter. This case with @DishSE15 and @ArloMoe, for example, which are Twitter profiles for businesses that are metrically close to one another but topologically distanced by the interruption to the street network created by the train line, that has been shown throughout as an influence on the placing of the public realm in Brockley. If an analysis were to centre on the feed of a hyperlocal news source in Peckham – the Peckham Peculiar[17] for example – many more businesses would undoubtedly show in that area and there would likely be more of a fine grain distinction between clusters in and around Peckham and Nunhead. There is a similar case to the east in Lewisham and Blackheath. Businesses across this relatively wide area that follow @BC (shown in blue on the map) follow each other more than they do businesses in Brockley. Again physical features such as the River Ravensbourne which runs north through Lewisham and Deptford into the Thames, and overland train lines, create separations that are reflected in the clustering of modularity classes. This separation, both to east and west, also coincides with lower degree values overall,

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[17] http://peckhampeculiar.tumblr.com/

meaning that people following @BC are less likely to follow them than they are businesses on or near Brockley Road. Finally, the most geographically clustered community of businesses are those in New Cross and Deptford (shown in green), which also have high degree values. This is by now perhaps unsurprising, given that is has been shown that these areas are very accessible from the centre of Brockley. There are other important categories of profiles in @BC's network core which cannot be accounted for in the same way. The next most populous category is individuals – profiles that represent a specific named person rather than an organisational group of people such as a business or media outlet. These individuals, though, are almost all people with public profiles created by roles outside of Twitter that relate to Brockley: journalists, councillors, and council candidates[18] account for the majority. There are also a number of other bloggers, some of which were interviewed and as will be seen in chapter 6 build public profiles through hyperlocal media itself. It would appear generally though that Twitter amplifies or at least reproduces the public profile of individuals already visible in the public sphere, reinforcing their access to a local audience. People that we might think of as 'ordinary' citizens, in the context of Brockley at least, largely occupy the lower end of the network and make up the bulk of profiles and are much less likely to follow one another, meaning it would remain much harder for them to distribute information from peer to peer and take control of the mediated centre.

5.5.4. Community formation

Table 5.3 shows the types and general locations of the most connected profiles in a small selection of the modularity classes, to illustrate different ways network communities are formed and the difference in resulting characteristics. Class 7 is the mediated and spatial centre located along Brockley Road and formed mainly of local businesses (and lower down the order of degree, their followers) but also including the local police sergeant @MPSBrockleySgt, another blogger @LondonSE4 (who writes about personal experience locally rather than news), the yearly arts festival @BrockleyMax focused around Brockley Road, and the Twitter profile of a pre-existing (i.e. before Twitter) community action group @BrockleyXaction. All the top profiles within this group could be identified as located within Brockley and the linked areas of Crofton and Honor Oak Park, even if some, such as the police sergeant and the arts festival, cannot be assigned a pinpoint geographical location in the way local businesses can.

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[18] Local elections took place in May 2014 while this part of the research was being carried out.

Class 1			Class 3			Class 5			Class 7		
Profile	Location	Type	Profile	Location	Type	Profile	Location	Type	Profile	Location	Type
BrockleyCentral	Brockley	Hyperlocal	TransportLnd	South East	Hyperlocal	Horniman Museum	Forest Hill	Culture	BrockleyMarket	Brockley	Business
SECentral	South East	Hyperlocal	deptforddem	Deptford	Hyperlocal	FHSoc	Forest Hill	Community	BrockleyMax	Brockley	Culture
BrockleyTheatre	Brockley	Theatre	DeptfordProj	Deptford	Planning	Saint_Ivy_House	Nunhead	Community	jamaicus	Crofton Park	Business
arts_business	UK	Arts	deptfordfright	Deptford	Hyperlocal	EastDulwich	East Dulwich	Individual	The_Orchard_	Brockley	Business
gnomenacage	?		TheAltany54	Deptford	Culture	livingsouth	South East	Media	magpiffs	Brockley	Business
nethsouling	?	Writer	thebigredpizz	Deptford	Business	honoroakpark	Honor Oak Park	Hyperlocal	theBroca	Brockley	Business
St_Jennings	East	Artist	thecrystalbee	Deptford	Business	peckhampeculiar	Peckham	Media	hopiootchbar	Honor Oak Park	Business
willhsxells	?	Writer	eastlondonbr	East	Hyperlocal	PeckhamPlatfor	Peckham	Culture	hillyfieldsnet	Brockley	Business
V_Decorations	South East	Decorator	LewishamMa	Lewisham	Business	DishSE15	Peckham	Business	GentlyE	Brockley	Business
benwillsond	?	Film	LewishamLof	Lewisham	Business	SEMags	South East	Media	TheBrockleyMess	Brockley	Business
Southern_Trains	South	Services	lewishamvisit	Lewisham	Guide	dondelaplas	Honor Oak Park	Business	The_Gantry	Brockley	Business
Lbubble	Rotherhithe	Theatre	LewishamCu	Lewisham	Local Authority	FoodStories	Peckham	Individual	AnioMoe	Crofton Park	Business
JetHamin	Brockley	Theatre	Deptforda	Deptford	Culture	theoldnunhead	Nunhead	Business	MPSBrockleySgt	Brockley	Services
LazarusTheatre	London	Theatre	NewCrossHc	New Cross	Business	FarmiesSE	South East	Media	LondonSE4	Brockley	Individual
robbeckettbomic	South East	Comedy	deptfordflm	Deptford	Culture	saffrionlondon	South	Individual	ElsKitchenLadyw	Ladywell	Business
improbable1	London	Theatre	DeptfordLou	Deptford	Library	StDavidCoffee	Forest Hill	Business	BrockleysRock	Brockley	Business
mogster	London	Theatre	theparticular	New Cross	Business	dulwichonview	Dulwich	Hyperlocal	brooklyyXaction	Brockley	Community
JustRMJ	Brockley	Theatre	myGoldsmith	New Cross	Education	PeckhamRyeEat	Peckham	Individual	mikanotole	Brockley	Business
arnbemb	Deptford	Theatre	No178_New	New Cross	Business	CrystalPalaceLP	Crystal Palace	Hyperlocal	CroftonKitchen	Crofton Park	Culture
DisAgg	Lewisham	Theatre	newxlearning	New Cross	Library	BamburNunhea	Nunhead	Business	paulolements	Brockley	Individual

Table 5.3: Types and locations within sample of modularity classes

Class	Whole	0	1	2	3	4	5	6	7	8
Nodes	5,952	617	997	407	859	732	641	102	1102	493
Edges	209,903	13839	2616	11959	13926	8397	16613	463	15021	7197
Connected Component	1	1	1	1	1	1	1	1	1	1
Average Degree	70.53	44.86	5.25	58.77	32.42	22.94	51.83	9.08	27.26	29.20
Maximum Degree	7,351	526	1155	367	456	585	457	63	774	257
Median Degree	26	22	2	32	16	9	24	6	11	14
Minimum Degree	1	1	1	1	2	2	2	1	2	1
Average Clustering Coefficient	0.480	0.606	0.363	0.615	0.549	0.606	0.571	0.605	0.604	0.391
Diameter	2	4	2	4	5	4	4	6	5	5

Table 5.4: Network values for modularity classes

In modularity class 1 there is no dominant locality for the profiles sampled, as far as can be ascertained from public information on Twitter profiles or investigation of other online profiles linked from them. Some simply said London, south-east London, UK, or were geographically unidentifiable. However, 15 of the 20 listed here could be identified as working in or linked to the arts, and 10 even more specifically in theatre. So within Brockley Central's network of followers there is a sub-community of followers more likely to be linked to one another through a shared interest in arts, and particularly theatre, but not linked strongly by their geographical self-identification. The one geographically specific profile within this sample is @BrocJackTheatre, or the Brockley Jack Theatre, which can be seen on the map in figure 4.8 in brown, in a different modularity class to the surrounding businesses. As theatres are more specialist than local cafes and restaurants it is logical that the theatre has a more spatially widespread public than these more low-range attractions, linking it into different flows of information focused around the arts more generally rather than local interest. The difference between these networks, though, also backs up Loureiro-Koechlin and Butcher's findings. The average clustering coefficient (which, to recall, is the degree to which everyone in a network knows everyone else on a scale from 0 to 1) is 0.363 for the transpatial interest group around theatre and 0.604 for the converging community of space and interest around Brockley Road, meaning that the network community formed around common interest is much more sparsely interconnected than the one in which neighbourhood proximity also plays a role.

The theatre follows and is followed by Brockley Central, and like other businesses it is visible on Brockley Road. In this sense it is very much part of Brockley's public sphere and its spatial public realm, and not only that but being centrally located and within the

top 5% most followed profiles in this network it is both at the mediated centre of Brockley Central's network and within the focus of its region of practice. Nonetheless it is also an interface with a geographically wider public that seems to identify more around common interest than it does location. The public that emerges around theatre in London has its own realm and is concentrated spatially in different ways, such as along the South Bank and in the West End, and also in media, around key publications and voices within that realm. The theatre in Brockley is likely as peripheral to that sphere as it is central to Brockley's public sphere, but it is still a crossover point between the two though. Businesses with a more local range are part of a more tightly woven network. As before, the point in this analysis is not to make an empirical statement on the precise relationship between spatial proximity, urban form, and the formation of Twitter relationships. To do so would require comparison of a significant number of hyperlocal Twitter networks, which is outside the aims of this study. The stated aim is to use Brockley Central, its territory, and its publics, to suggest concepts and methods to underpin a better understanding of the interrelation of space and media in the formation of place. The analysis presented in this chapter suggests that local businesses can be thought of as interfaces between the spatial public realm and the networked public sphere of a neighbourhood; that fine grain details in urban form could structure the way they form connections with one another and with publics; and that connected and spatially proximal businesses have converging identities and interest that make them more like communities than can be said of the publics of individuals that are connected to them and not to one another.

5.5.1. The hyperlocal social media network in action

The data drawn from @BC's Twitter network so far in this chapter represents a static snapshot of the set of networked following relationships at the time of conducting the research. An illustration of the way Twitter is activated locally illustrates some of the findings it suggests and expands upon the way that businesses act as the mediated centre of the hyperlocal public sphere. The online tool Netlytic (Gruzd, 2016) captures tweets and the connections between them in the form of mentions and replies between profiles, by searching keywords and aggregating recent and new tweets that match that search over a defined period. Using Netlytic, a dataset was collected consisting of all public tweets in the month of November 2014 that contained the strings "@brockleycentral", "#Brockley" (which also searches for simply "Brockley") and "SE4" (Brockley's postcode, and similarly including just the text "SE4"). These parameters were used to try to capture the greatest range of Twitter discussion about Brockley and to find what profiles featured prominently in that discussion. Nonetheless Brockley Central dominate discussion and so analysis was also undertaken with the node

@brockleycentral removed to allow the structure of other interactions to be seen more clearly. In the previous analysis, @BC's network was used as a proxy for a localised public, giving a delimited population for whom connections could be analysed. Furthermore, it is not technically possible to collect data on all Twitter users living in Brockley and the connections between them, as there is not enough public information available. This kind of data collection does not need to be limited to the quasi-stable network of following relationships around @BC because it *is* possible to collect all tweets that mention Brockley[19] and @BC within the context of the total network of actual discussion that goes on around it.

Figure 5.10 shows the network of profiles tweeting with the tags Brockley, SE4 or @brockleycentral, to indicate their relevance to the neighbourhood Brockley. Unsurprisingly the most popular is @BrockleyMarket, also the most followed node within @BC's network. Twitter accounts for some of the same local businesses that showed as central to @BC's egonetwork are also key here: @ArloMoe (café), @patchworkp (shop), @brocjacktheatre (theatre), @the_orchard_ (restaurant) and @thebroca (café) are the most significant. Also reflecting the makeup of the top 5% sample in the previous graphs, other hyperlocal sites are the second most mentioned nodes: @alternativese4 (covering SE4) and @croftonparklife (covering Crofton Park) are the most popular, while @transpontine (covering all of South London) and @honoroakpark (covering Honor Oak Park) both make a lesser appearance and are spatially less overlapping with Brockley Central. The London-wide media outlet @timeout (and the city-specific version of its Twitter handle @timeoutlondon) are also popular in discussions about Brockley at this point in time. During the data collection period the city guide announced the results of a poll of readers' favourite places in Brockley.[20] In between these nodes though is a fairly dense web of connections amongst Twitter users that do not have the public profile of these key businesses and media outlets. This is formed in two main ways. Firstly, the more connected of these are the kinds of individuals described previously as having existing public profiles: mainly journalists for south London or London-wide media outlets. Secondly, some connections do get made between the smallest nodes that cluster around the businesses and hyperlocals.

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[19] Or at least was at the time of data collection, but Twitter's updated algorithms mean some tweets are now filtered presenting new challenges for researchers
[20] http://www.timeout.com/london/things-to-do/blackheath-and-brockley-a-locals-guide
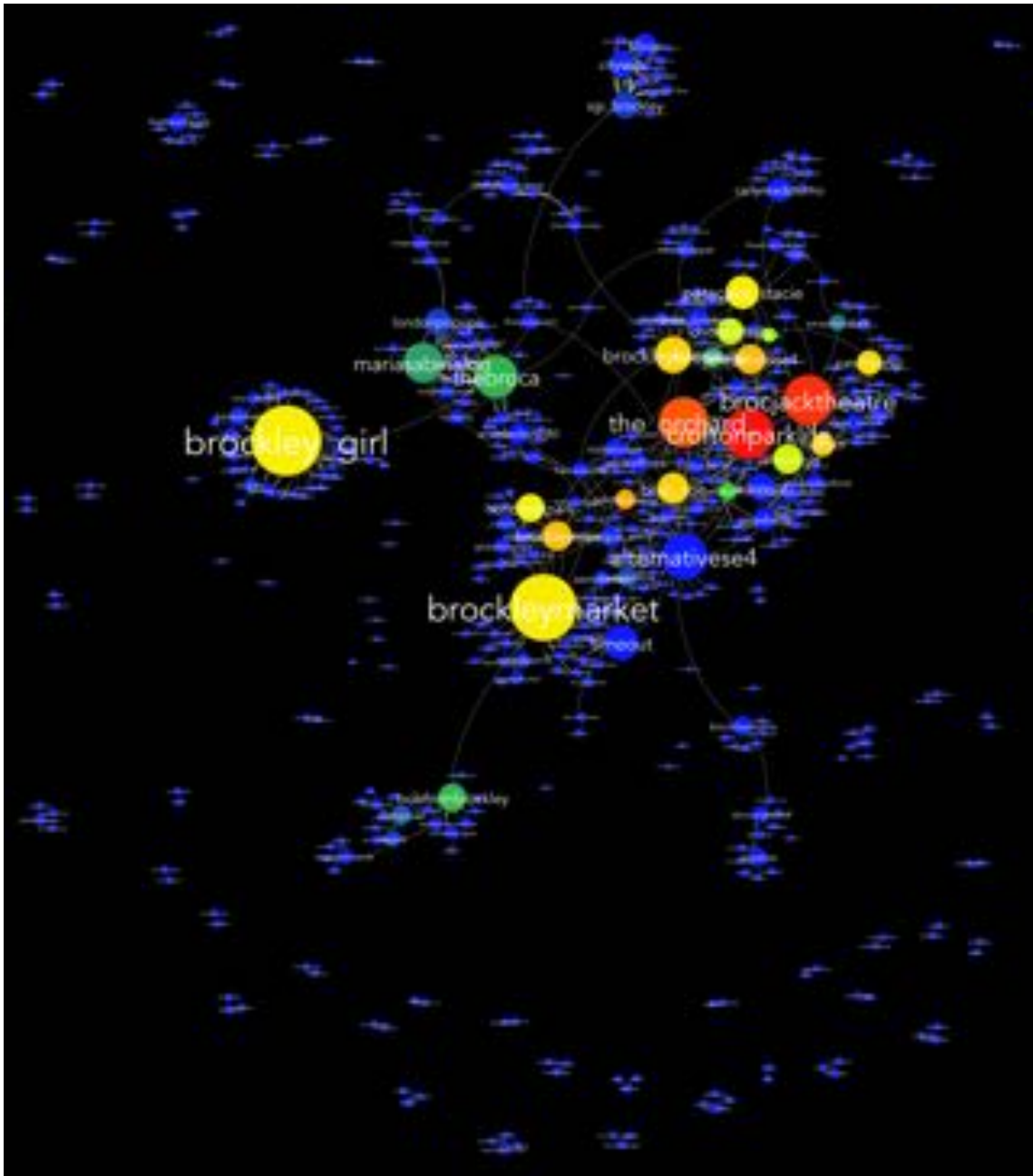
Figure 5.10: Network of discussion about Brockley and SE4. Nodes represent Twitter profiles and edges represent a reply from one profile to another within a tweet containing the search terms "'@brockleycentral', 'Brockley', and 'SE4'. Profiles are connected by edges that represent mentions and replies rather than following relationships. A directed connection is made from one node to another whenever the source node mentions the destination node in a tweet or replies to a tweet by the destination node. Each node is sized according to its in-degree (the number of times it has been mentioned or replied to during the data collection period) and coloured according to its total degree (including the number of times it mentions or replies to other nodes).

Many of these interactions are in the form of retweets, which show in this network as a link from the profile re-posting the tweet to the profile that originally posted it. So in this network for example an individual (for the sake of privacy, profiles representing people rather than public-facing businesses and organisations will not be referred to by name) has posted a message asking if others in the area have seen a missing cat, mentioning @BrockleyMarket in the message. @BrockleyMarket has retweeted the message,

meaning a two-way connection is made between the individual and @BrockleyMarket. Another individual who presumably follows @BrockleyMarket has seen the tweet and retweeted it themselves, making a network connection between these two individuals via their mutual awareness of Brockley Market as both a place and a source of information on Twitter. Outside this central mass, most nodes are connected only in dyads, representing one-off replies or retweets about Brockley from one user to another. These disconnected engagements actually make up the majority of the graph and suggest that Twitter is not working as a setting for sustained peer-to-peer debate about Brockley but passing and unsustained associations between individuals. This is in line with the interpretation of converging community given previously: businesses, as stable spatial entities that are visibly embedded in Brockley, ground Twitter interactions around them; individuals on the other hand perform their localness less strongly and so this aspect of converging community is missing.

Figure 5.11: Leveraging the Twitter account of a local business to access neighbours in the search for a lost cat, by mentioning @BrockleyMarket. Retweeted by @BrockleyMarket and subsequently four individuals

5.6. Interpretation

5.6.1. Businesses, triangulation, and the third place

The idea that businesses have a role as communication assets via social media should perhaps not be surprising given how they have been theorised previously. In what follows, the notions of the *third place* and *triangulation* are related to observations from Brockley Central's social media feed to suggest how businesses help to tie people to their neighbourhood through media, and in important non-instrumental ways that do not

fit into the imaginary of social media as a political tool for communities. Some of these observations derive from the interview data presented in the next chapter but are used here to introduce these terms that will be used throughout the analysis of that data. In the 1980s Oldenburg and Brissett introduced the notion of the "third place" to describe the way that commercial spaces can be the setting for the creation of publics. They defined the "third place" as follows:

"a public setting accessible to its inhabitants and appropriated by them as their own. The dominant activity is not "special" in the eyes of its inhabitants, it is a taken for granted part of their social existence. It is not a place outsiders find necessarily interesting or notable. It is a forum of association which is beneficial only to the degree that it is well-integrated into daily life. Not even to its inhabitants is the third place a particularly intriguing or exciting locale. It is simply there, providing opportunities for experiences and relationships that are otherwise unavailable."
(Oldenburg and Brissett, 1982, p. 270)

Now, via Twitter, businesses in Brockley are providing opportunities for mediated association that according to the analysis of @BC's network are not well established directly between individuals. This is not to say that they no longer act as generators of immediate encounter too, in the way observed by Oldenburg and Brissett: the anecdotal evidence presented in the next chapter suggests they also do this in Brockley, that the mediated encounters and immediate co-presence they generate can reinforce one another, and that they also act as sources of information in 'non-technological' forms. Businesses' roles as neighbourhood social spaces have expanded into the mediated public realm, enriching their potential as points of commonality between residents of the area. This process in which a pre-existing communication practice gets replicated in uses of new forms of media has been described in chapter 2 as 'remediation' – in this case association via co-presence in a third place gets remediated as mutual exposure via interaction with its Twitter profile. Matthew Carmona (2003) uses the term "triangulation" to describe this process, in which a common reference point becomes a pretext for communication in public, overcoming the strong normative behaviours that, according to Goffman, otherwise constrain direct interpersonal communication. Though Carmona is referring specifically to public art, the essential concept is that material cultural forms in public can create a setting to overcome barriers to public inter-subjectivity and set up the sharing of ideas, opinions or responses to the entity in question. Applying a remediation to Carmona's terminology, it could also become a valuable description of the role of businesses on Twitter, in the mediated public realm. Despite the fundamentally communicative nature

of Twitter, which has led many to imagine that it would automatically become a peer-to-peer communication tool, its network structure in Brockley is not conducive to direct interpersonal communication. When a business enters into conversation on Twitter with an individual, however, enough of a commonality can be established by others who follow and identify with that business to bridge the polite distance of public behaviour that is present even in social media, albeit in a greatly diminished form. Another aspect of the role of third places in hyperlocal social media communication practices, also echoed by Oldenburg, is the mundane. Spreading information about a missing cat, as in the example in the previous section, may not appear to be the most pressing issue that neighbourhoods could address via the power of networked communication technology, but it is important. Missing pet tweets circulate through the local Twitter network regularly via highly-connected Twitter users like Brockley Central, Brockley Market, and other businesses. Of course, help in retrieving a lost cat is undoubtedly of great instrumental value to its owner, but another passage from Oldenburg suggests why people that do not directly benefit may be so keen to help:

"Another kind of communication (nondiscursive symbolism) establishes not contractual bonds between people but spiritual ones; providing not simply knowledge of people but knowledge about people. This kind of speech is idiomatic and steeped in local heroes and local tragedies, in gossip and romance. It ties people to places and yet removes them from the little schemes and strategies of self-interest. It gives individuals a sense of continuity. Always, it evolves from the people themselves and is not manufactured by hucksters or campaigners. There is nothing rational, instrumental, exploitative, or promotive about such talk. To the extent that men engage in it, they maintain unity and a sense of belonging."
(Oldenburg and Brissett, 1982)

The retweet of a plea to find a lost cat is an ideal example of non-discursive symbolism, which is made possible via the third place of the business' Twitter account. It is non-discursive for several reasons. 'Retweeting' (in which one user posts another user's message to their own followers), like 'following', is a communicative action with no direct analogy outside of a social media setting. Whilst it enables the transfer of textual and linguistic information from one egonetwork (the followers of the person who originally posted the message) to another (the followers of the person retweeting it), it also passes a non-discursive, encoded message from the person retweeting to the person being retweeted, delivered by Twitter as a notification of that retweet. Like the follow, this sign could be interpreted differently according to any number of factors ranging from the content of the tweet and any relationship of the two individuals outside

or within Twitter, to the particular emotional state of the original poster of the message at the given moment. It could easily be imagined that the person looking for their cat would interpret a retweet from a local business in the terms of Oldenburg and Brissett's definition: romance, unity in the face of local tragedy, belonging. The simple act of retweeting the search for a missing cat is potentially useless in practical terms but highly symbolic as a public performance of localised solidarity, without the contractual bonds of the social tie. If Oldenburg and Brissett are right the retweet, as a non-discursive symbol, should "[tie] people to places" giving the mediated hyperlocal network of businesses a strong role in intensifying subjective experience of the neighbourhood, which will be argued in the next chapter as being the case.

Non-discursive symbolism has another dimension here too though. It is not *merely* non-instrumental, but *necessarily* so. As soon as discursiveness is introduced – through self-revelation or political deliberation for example – solidarity becomes hard to maintain. Discursiveness reveals difficult things like fundamental ideological or practical differences between individuals that can become an impasse for the detached sociability of the public realm. Brockley's hyperlocal public realm is overwhelmingly characterised by the "local heroes and local tragedies" observed by Oldenburg and Brisset in neighbourhood bars, and is almost entirely depoliticised in terms of actual organised action oriented to specific issues. As much as Twitter has been lauded as the new democratic organ, it has been written off as a puerile gossip mill. Arguably though these two interpretations should not be seen as oppositional. It is not by accident that Oldenburg accuses political campaigners of "exploitative" and "promotive" talk. These kinds of political communication are heavy burdens on the casual association of the public realm, mediated or otherwise. Potential communication pathways must be kept open by gossip, romance, and stories, so that they can be called upon should the greater challenge of instrumental self-organisation become necessary on behalf of Brockley's residents. The commonality of unremarkable and unpolitical things such as local cafés, and the lightweight controversies they generate themselves and also circulate, are fundamental to the upkeep of a hyperlocal communication infrastructure in Brockley. In this framework, essentially that of neighbourhood storytelling introduced in chapter 2, the value of informational exchange is not in the behavioural or political outcome it produces but in the "ability to 'imagine' an area as a community" through "stories about 'us' in this geographical space" (Kim and Ball-Rokeach, 2006, p. 178). In the following chapter this storytelling framework is expanded upon via analysis of interviews with Brockley's public, showing how it relies on a combination of embodied and mediated publicness and an ecology of

communication that places hyperlocal media as part of a wider set of practices and actors that constitute the hyperlocal public realm.

5.6.2. The nature of networks

I would like, at this point, to take a theoretical detour to criticise the notion of the network itself, by asking: what is actually shown in a map of Twitter following relationships? Critical reflection on this question, I would argue, is essential to improving the way contemporary communication and its networked connections are understood in relation to the city. Links set up by social media – Twitter "followers", Facebook "friends" and LinkedIn "connections" for example, each with their slightly differing imaginary of what a social association is – have in some accounts been used as stand-ins for *social ties* (i.e. Takhteyev et al., 2012). In network approaches to sociology that see communities as geographical concentrations of stable social connections in a wider network of "weak ties" (Granovetter, 1973), social ties are the basic unit of urban societies. Bruno Latour has strongly argued for an alternative conceptualisation, which better reflects the way hyperlocal communication has been observed in this study and opens up the possibility for a non-dualist representation of the roles of media and space in hyperlocal communication, that will be explored in chapter 7. In Latour's understanding (Latour, 2007), associations between individuals are more like actions than they are stable entities. One off communicative transactions do not guarantee a social bond of any sort, even a weak one. Instead communicative acts between non-kin individuals, performed repeatedly, can start to take the appearance of ties with their own ontological reality. If the habitualized performance of communication drops away, however, so can the guarantee of mutuality that has developed with the sustained association. Association is stimulated, then, by the *need* to communicate, which itself derives from the *issues* - or in Latour's terminology *controversies* – in response to which public opinion emerges. When an issue or controversy arises, latent associations can be revived. In other words, what traditionally been thought of as a social "fact" is instead a "potential" for communication. This conceptual shift from facts and ties to potential and associations also requires a transformation in the understanding of the role of technology in social networks, which brings us back around to the focus of this chapter. What Latour calls "the sociology of the social" sees social ties as entities in their own right that are carried by communication technologies. So if Facebook, for example, allows friends to remain in contact over a distance the "sociology of the social" understands that a pre-existing social tie has simply been geographically extended, and remains fundamentally the same thing. In Latour's alternative proposition – the "sociology of associations" – communicative action is the fundamental reality. Communicative acts, in this model,

are not only formed of informational content but are radically shaped by the means by which they are carried out.

When communication technologies are used they set the framework for this means, so they do not simply mediate a message and deliver it as intended but act in the specific ways in which they have been designed. This can be illustrated effectively, linking back to Brockley Central and its Twitter network, by the act of following on Twitter itself. Imagine, for example, that one hypothetical resident of Brockley sees the profile of another resident in conversation on Twitter with the account of a local business (which as will be shown in the next chapter is one of the few ways in which individual residents manage to find one another online) and that the observer does not state on their profile any link to Brockley: perhaps they wish to portray themselves as a resident of London, the global city, rather than Brockley, the parochial suburb. However, they are interested in what is going on in their locality, so follow Brockley Central's Twitter feed as well as the local businesses at the core of its network. The observed user is more explicitly proud of their status as a 'Brockleyite' and specifies this location on their profile. They post a tweet saying they are having a great coffee at a local café (that is one of these well-connected businesses) with a picture of themselves in the café and mentioning the Twitter handle of that business. The business retweets their message, and replies with gratification. The message by the observed user and the business' reply are both broadcast from the centre of the network out to the many disconnected onlookers. This individual's spatial identity is performed in several ways: they are evidently *in* a known local business in Brockley; they explicitly state themselves to be resident in Brockley; and their status as such is validated in communication with that business. If the observer of this process then follows the individual who posted the message, they perhaps intend to establish a neighbourly connection that might even work as a social tie. This following relationship *exists* undeniably, as it is encoded technologically. We know this because we can see it as a line between two vertices on our graph. This is not, though, simply two individuals setting up a connection *via* Twitter. In Latour's understanding then, many technological, material, and human actors within this scenario form the basis on which communicative action can take place: Twitter's profile format constrains the ways identity can be presented; the café does part of the work of performing that person as a local; the built-in filter on the smartphone camera casts just the right light to catch the eye of the observer; the particular aesthetic of the way the milk and coffee have combined in the cup even do cultural work in setting the conditions for an association; and so on. None of the conditions of either the space in which the person tweeting sits, nor the devices or software they use to capture and broadcast a message about the space, are neutral, and all can potentially be taken into account in a network model of communication between those individuals.

In all this context, the single moment of communicative action on the part of this observer comes when they click the "follow" button. This action may be intended as an encoding of an implicit statement of intent along the lines of "I also live in Brockley – let's connect". This, however, is not the message received by the tweeter, as the context in which they receive that notification is different from that within which it was sent. They receive something entirely different: a notification that they have a new follower. Twitter itself here is an actor in this chain of communication, sending different messages to different actors rather than simply acting as a conduit for information. The observer has not actually interacted directly with another person, but only with the Twitter website on their computer. Twitter's software has created a pathway between these two profiles, so messages posted by the followed person in the café will appear in the feed of the observer at work on their computer. Twitter has then sent a message of its own, in its own words, to the followed person notifying them of the establishment of this pathway. The interpretation of this message by the person in the café may be something different to the intended neighbourly connection: someone has followed me, who perhaps intends to flirt, or to do business with me, or is simply another digit in a growing bank of followers. Twitter has created a specific communicative transaction – the 'follow' – that has its own independent ontology and can be interpreted differently by different actors within the association it sets up. However analogous it may seem, there is no exact equivalent of this transaction outside of this platform. The result of this momentary mediated association is a stable tie between two vertices on our graph, but really the following relationship is just the trace of the initial moment of communicative intent. There is simply now the *potential* for information – in the form of tweets – to pass from the followed to the follower. This potential may be realised differently at different times. If it is regularly activated as a pathway for the follower to receive information about their local area, the person being followed may establish themselves for their new follower as a key local storyteller. In this case what we have is a potential communication pathway between neighbours created within Twitter that is regularly performed as locally valuable. If, however, this potential pathway ceases to provide to the receiver information that is pertinent to Brockley they may break the link by 'unfollowing' – changing the network graph. Alternately, and very importantly, they might cease to pay attention to the tweets from this person, or become interested in a different aspect of what this person broadcasts. This change of attention is not 'machine readable' in the same way that the binary off/on status of a following relationship is. Networks of following relationships cannot therefore be taken necessarily for networks of actual, live neighbouring. It is for this reason that in building a picture of the way media works in place it is essential to combine a data approach, as

in this chapter, with analysis of personal reports of using these technologies in relation to locality that build a more holistic picture of how media and space work together to build the 'place-ness' of the neighbourhood.

5.7. Conclusions

The analysis in this chapter suggests that in the case of Brockley Central the hyperlocal Twitter public is not a network of 'all-to-all', and therefore 'everywhere-to-everywhere', as is often imagined in accounts of new media, but a mediated centre, in both spatial and network terms, with an audience of onlookers. The mediated centre consists of a small, tight clique of high profile local actors who follow and interact with one another, circulating stories between them in interactions that are visible to a large network of individuals largely disconnected from one another. While this is only one case, and other types of place-based Twitter networks may have different patterns of connection, the structure observed in the analysis in this chapter reflects accounts of the urban public realm arguing that it is normatively characterised by indirect and brief associations with strangers, triangulated via third spaces and the exposed positions they create, with these characteristics being remediated by protocols for communication through the hyperlocal Twitter network in Brockley. The majority of the small group of highly connected profiles that form the mediated centre was seen to be ones that represent local businesses, with stable, visible locations in space. These businesses are more likely to follow one another the closer they are topologically, forming stable sets of spatial and mediated relationships. The most popular community of profiles within the network represent businesses located at the spatial core of the neighbourhood, along Brockley Road, suggesting that the notion of the mediated centre is not only still relevant, despite the potential for fully distributed networks on Twitter, but is also a spatial phenomenon in the context of hyperlocal media, in which profiles that perform a spatial identity that is central to the neighbourhood build up the most local connections. A network group formed purely around interest and without any obvious place specificity was also observed, but was less tightly connected, suggesting that the convergence of interest and proximity is the strongest integrator of networked connections, allowing a network of actors such as local businesses, rooted in a specific location, to become a community. Local businesses, then, are key to the formation of a hyperlocal public sphere in that they are spatially embedded actors that both generate issues and communicate the framing of those issues via Twitter. In this sense they anchor the public sphere of the hyperlocal Twitter network in a particular location, interfacing between mediated and unmediated flows of information. As actors tied to a specific location and circulating 'non-discursive' stories about the neighbourhood, whose value is symbolic rather than instrumental, they tie these symbols to place. In doing so, according to Oldenburg and Brisset's theory and as is demonstrated in

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chapter 6, they tie people to place. The protocol of non-discursive symbolism, remediated from the spatial setting of the third place to the media setting of the Twitter network, formed the basis for a critique of ideologies around the role of communication networks in urban places that were presented in section 2.8. It was argued here that hyperlocal social media should not necessarily be judged instrumentally, as a tool leading to direct interpersonal connections and political agency over urban space, as imagined by smart city and smart citizen frameworks, but can be seen as a symbolic realm of storytelling about place that allows people to imagine the socio-cultural coherence of a neighbourhood. In order to demonstrate this, it is necessary to zoom in from the systemic network overview provided by the technological forms of analysis in this section, to the first-hand perspective of users of hyperlocal media. The qualitative interview approach in the next chapter reveals phenomena that internet-mediated data collection (from the blog and its Twitter feed) cannot, showing how these networked communication practices are situated within the lifeworld of users of hyperlocal media through communicative associations and imaginaries that are not machine-readable, and must be reconstructed through first-hand account.

6. Method 3: Placing Communication Practices in the Lifeworld

6.1. Introduction

The data presented so far, collected online from the Brockley Central blog and its Twitter egonetwork, have been illustrations of a feedback loop in Brockley between spatial phenomena and conditions – linkages, barriers, centrality, and certain spaces like local businesses – and the framing of space in media, in creating a mediated public realm that can be geographically located in uneven and scalar ways. Data collected online, though, can only partially address the aims of this study. When the object of study – online media – is also the means of research, important context is discounted, which would not suffice for the stated aim here of placing hyperlocal media in a richer and more nuanced way than has previously been done. The technology-first methodologies discussed so far are therefore complemented and expanded upon by a qualitative approach that situates hyperlocal media within the spatial and social lifeworld of its users, and necessarily therefore in relation to a broad range of communication practices that intersect with but are not contained within the setting of the blog and its social media network. As argued in chapter 2, communication technologies do not act directly on urban space as an external factor, but become a constituent of it via their adoption by individuals as strategies for urban communication. This qualitative approach, therefore, is an essential component in a richer conceptualisation of urban communication that sees 'virtual' communication within the same phenomenological frame as the built environment. In doing so, it stretches the concept of 'placing', which so far has been applicable literally as geographical and network mapping. In this method, placing means making media an issue of place via the experience of those who live in and communicate about that place, imbuing media theories with spatial concepts such as scale, and to "identify or classify as being of a specified type or as holding a specified position in a sequence or hierarchy",[21] placing hyperlocal media in its socio-spatial context.

The methodology employed in this chapter, then, is based in the development of grounded theory through qualitative data collection, as will be explained. The data collection itself consisted of semi-structured interviews with 30 residents of Brockley Central's territory that took place over the course of 2 years. These interviews were purposefully open-ended so as to explore the way the blog is experienced subjectively as a constituent of the neighbourhood without pre-imagined limitations on its potential

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[21] https://en.oxforddictionaries.com/definition/place

linkages with other phenomena. Very quickly, in speaking to participants, it became clear that to separate out 'hyperlocal media' and 'the internet' as realms of investigation was an artificial imposition of categorisation on a much more complex and fascinating reality. As argued in Daniel Miller's anthropology of social media in an English village, referenced earlier, the internet is never a place apart but something that operates within and as a seamless part of 'ordinary' life. This realisation, coinciding with the inclusion of Sandra Ball-Rokeach et al.'s theory of "communication ecology" (Ball-Rokeach et al., 2013), precipitated a widening of focus that at times takes us away from hyperlocal media, but is essential to understanding the context within which hyperlocal media operates and the multi-modality of the creation of a hyperlocal spatio-informational realm from the point of view of the individual. So while the previous chapter began to bring in local businesses as a factor in understanding how Brockley Central's public sphere can be placed, the evidence collected in these interviews expands the frame of the research further. To situate hyperlocal media in place requires reference, via the experience reported in these interviews, to urban morphology, land use, the generation of local issues, non-internet media, and so on. These infrastructural conditions and communication strategies, it is argued through this chapter, must be taken into account to understand how media becomes spatial, and how place becomes constituted by media, in a networked ecology of communication in place. The chapter continues with an account of the empirical and epistemological framework for the qualitative data collection and explains the method for contacting and recruiting interviewees. The third section gives background socio-economic and spatial information on the respondents. The bulk of the chapter, in section 4, draws heavily on quotations from the interviews, which are presented thematically to explore various aspects of the hyperlocal communication ecology, with reference to the theories of urban communication introduced in chapter 2. Following the schema of "grounded theory" (discussed further in the next section) interpretation is built into the presentation of the data in order to illustrate and extend existing conceptual frameworks through direct reference to theory, as well as to qualify the technologically-observed phenomena revealed in chapters 4 and 5. The last section of analysis combines observations into notional model representing communication practices in relation to the various spatial scales of the public that are implicitly or explicitly described by the interviewees. Section 5 of the chapter concludes by summarising the specific observations made through the interview data, responding to the core research question by discussing the conceptual models these observations illustrate and expand upon.

6.2. Data Collection and Empirical Framework

The data collection followed the epistemological framework of grounded theory, in which questions and concepts are built and refined through the process of the research, rather than tested out against a set of statistical or qualitative 'facts'. Uwe Flick, in his comprehensive survey of ethnomethodologies, argues that this kind of approach "addresses how people produce social reality in and through interactive processes. Its central concern is with the study of the methods used by members to produce reality in everyday life" (Flick, 2009, p. 60). The development of grounded theory is also *inductive* rather than *deductive* – in that a hypothesis should not be proven or disproven but induced through a process of asking questions, gathering information, and refining questions based on that information (Strauss and Corbin, 1998). The concern here, then, was to explore from a fairly neutral starting point how reality is produced through communication practices in the specific context of everyday life framed by the neighbourhood, or hyperlocal region. In total 30 interviews (actually 32 people in total, but two pairs of people asked to be interviewed as couples and are counted as one interviewee) were carried out, lasting between 30 and 40 minutes each. The interviews were semi-structured: several broad questions were adhered to, but with the allowance of space for digressions on behalf of the respondent. These are important, as they raise phenomena not foreseen by the interviewer in the design of questioning. Lines of inquiry, then, are developed 'on the ground' rather than determined in advance. The initial question was always whether or not they read any blogs about the area, and why, without specific mention of Brockley Central. Once the responses elicited by this, and any digressions, had played out, they were asked how else they find out about their locality, and who they communicate with in the area. The broad questions were intended as prompts for implicit reflection on phenomenological experiences of information and media in place, again leaving room for unforeseen directions of conversation. Interpretations were also tested out 'in situ', through what Witzel has called "specific prompting" (Witzel, 2000) which aims to deepen the researcher's understanding of a specific statement by reflecting it back to the interviewee and having it confirmed or challenged. By reflecting their observations back to them with interpretation, interviewees were also encouraged to develop a synthesised account of how their communication practices and use of media formed part of the aspect of their lives that plays out within the locality. That is to say that whilst some of the questions elicited relatively practical information about media usage, others stimulated a level of reflection on this topic that respondents most likely rarely enter into otherwise, thus eliciting knowledge that for them did not necessarily exist prior to the conversation. The assumption was that interviewees did not necessarily have a clear pre-existing picture of the place of media in their lifeworlds that could

simply be elicited by specific questioning, unlike a survey approach, and the aim was to co-develop an understanding through conversation. The interview data was analysed through several stages of coding, grouping together excerpts around commonalities and deducing from these themes that were texted out in later interviews, following Strauss and Corbin's suggestion.

Because of this, an iterative approach to recruitment was necessary. Interviewees were contacted in stages by different means relating to the aims of each stage of the research, with early analysis conducted after each stage. This extended process of data collection consisted of: a pilot study of two interviews; a first round of thirteen interviews between January and April 2014; a second round of nine interviews between July and November 2014; and a third round of seven interviewees in April and May 2015. In each of these stages the interview technique and recruitment method was adapted to reflect the aims and current framework. The two pilot interviews, which have been incorporated into the data, were with one individual and one couple contacted through existing acquaintances on behalf of the researcher. Given the pre-existing mutual awareness between interviewer and respondent, these took the form of friendly, fully unstructured conversations which informed the development of the loose structure for later interviews. In the first full round of interviews, eleven of thirteen were respondents to a blog post on Brockley Central, meaning this sample was largely self-selecting and limited to readers of the blog, except for one further personal contact, who was a resident of the area, and one – a business owner – made through a previous interviewee. Several strategies, derived from Uwe Flick's definition of this methodology, were used to process the data and follow on from this collection of data. Firstly, a shift in the line of questioning in response to the theoretical issues arising. Initially the approach was, alongside general questions on media use, to ascertain from each interviewee a list of 'social ties' in the area, with their locations and the forms of media used to communicate with them. It quickly became apparent, both through the ways interviewees described their range of mediated and unmediated associations and from the theoretical incorporation of Latour's "sociology of associations" (described in section 5.6.2), that the notion of the tie as a stable reality carried out fairly inconsequentially through media was an unhelpful simplification. Latour's framework of associations that are formed through communication with both people and media, but that could also drop away, matched interviewee's descriptions of their communication practices more closely. On that basis future questioning focused on *how*, *why*, and *where* people communicate about issues of local interest, rather than *who with*. The second strategy derived from Flick's outline of grounded theory research was the use

of *theoretical sampling* to expand the dataset, which "proceeds according to the relevance of cases rather than their representativeness" (Flick, 2009, p. 121).
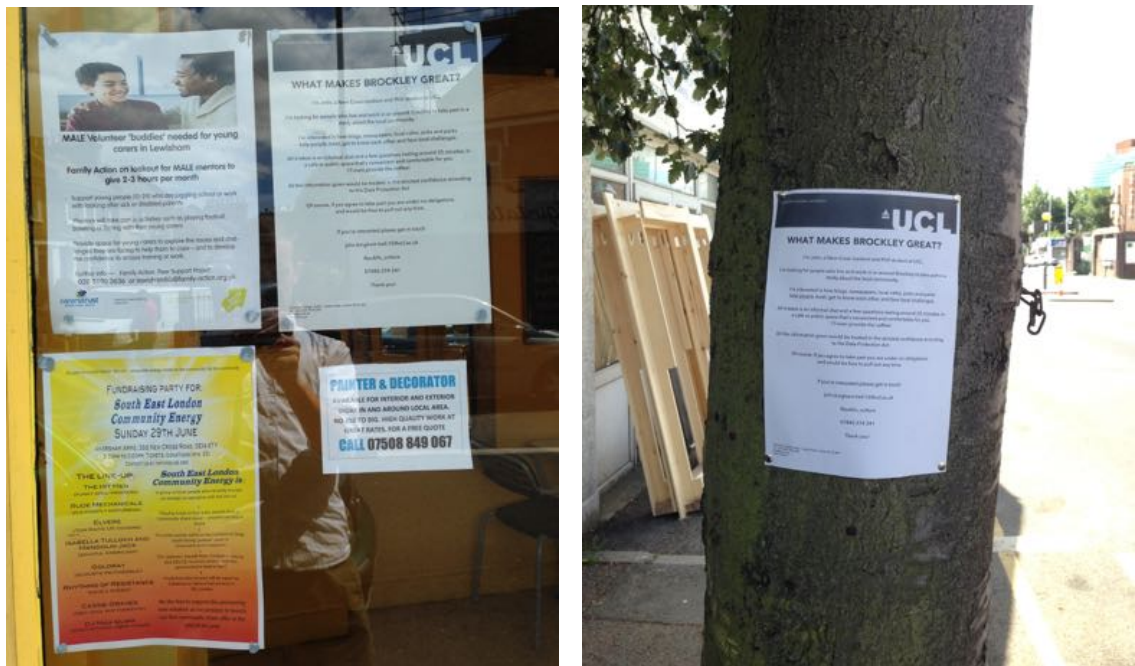
Figure 6.1: Posters in Brockley recruiting interviewees
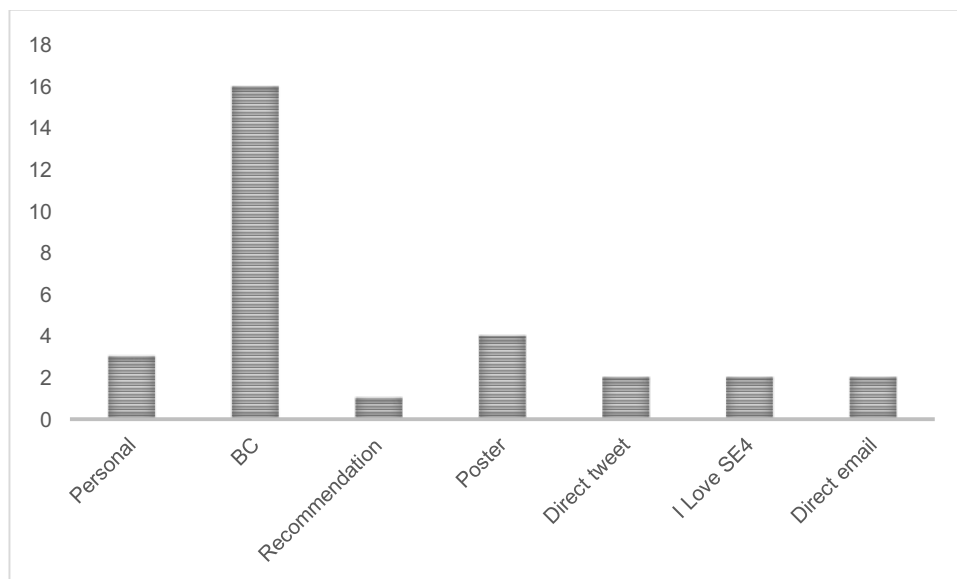
Figure 6.2: Bar chart of interviewees per recruitment method. Brockley Central was by far the most successful, followed by posters

The first round of interviews made it clear that Brockley Central, and even online media in general, could not be discussed in isolation. All interviewees described ways in which associations passed from one form of communication media to another, or how awareness of events and issues was reinforced between complementary channels of communication. Particularly surprising was the importance of informal printed media – leaflets, posters and non-professional newsletters – in all accounts. The fact that online

media could not be separated out as a realm of practice, and was inextricably linked with other channels of communication, informed the theoretical and methodological development of the rest of the work. It was clear that questions needed to go beyond the use of blogs and social media, asking about all sources of information and looking for links between them. The initial set of interviewees were all guaranteed to be readers of Brockley Central by the fact that the blog was the medium through which they had been contacted, so a second round of advertising took two different approaches. One was to advertise via the 'old-fashioned' medium of posters placed in the windows of businesses on the high street, and on noticeboards and trees in the area (as shown in figure 6.1). As well as being unexpectedly important forms of communication for Brockley Central readers, this also offered the possibility for theoretical sampling of non-users of the hyperlocal site that could offer contrasting experiences. As shown in figure 6.2, posters were the second most successful form of recruitment for interviewees after Brockley Central. The other approach to recruitment for the third round of interviews was purposive, responding to Flick's notion of theoretical sampling, making proactive contact with business owners, local politicians, and key Twitter users identified by the network analysis, who could describe experiences other than those of the relatively 'invisible' individual residents who tended to respond to the blog post. This resulted in a final set of interviews including four via printed poster adverts, two via direct tweet (both other local bloggers), and two via direct email (a Brockley Ward councillor and the chairperson of the local conservation society) (see figure 6.2). After this round of data collection all interviews were qualitatively coded, revealing the common threads. It was judged that a sufficiently wide range of themes had been covered for the purposes of the research, so the final set of seven interviews in April and May 2015 had as their aim the confirmation of the emerging hypothesis through questioning based on the set of theories that had been developed as the best description of these reported experiences.

6.3. The Respondents

Although, for the reasons given above, demographics and other statistics about the interviewees are not pivotal here they do provide a picture of the respondents that is still valuable. Figure 6.3 shows a map of the locations at which each respondent (or pair of respondents) lived at the time of the interview, combined with data showing whether or not they are a homeowner and how long they consider themselves to have lived in the area (not necessarily at the specific address). They represent a relatively even geographical spread across the Brockley Central's self-defined region of coverage. All but three, twenty-seven in total, owned their own homes, which is indicative of the literal and symbolic investment in the locality that home ownership

brings and that seemingly leads to both the use of hyperlocal media and the willingness to discuss it with a researcher. The longest-established residents tended to be in the terraced streets to the east of Brockley Road, which is also the zone covered by the Brockley Conservation Area, whilst newer arrivals tended to be to the north and west where until recently property has been relatively more affordable. In a repetition of a pattern throughout, only three respondents of the thirty live in the part of Brockley that is west of the train tracks, despite recruitment posters being positioned there. Beyond the ward of Brockley and the postcode SE4, more respondents lived in New Cross, Telegraph Hill, and Crofton Park, parts of the Brockley Central region that have been shown to be more accessible from Brockley Road than even the west of Brockley itself.
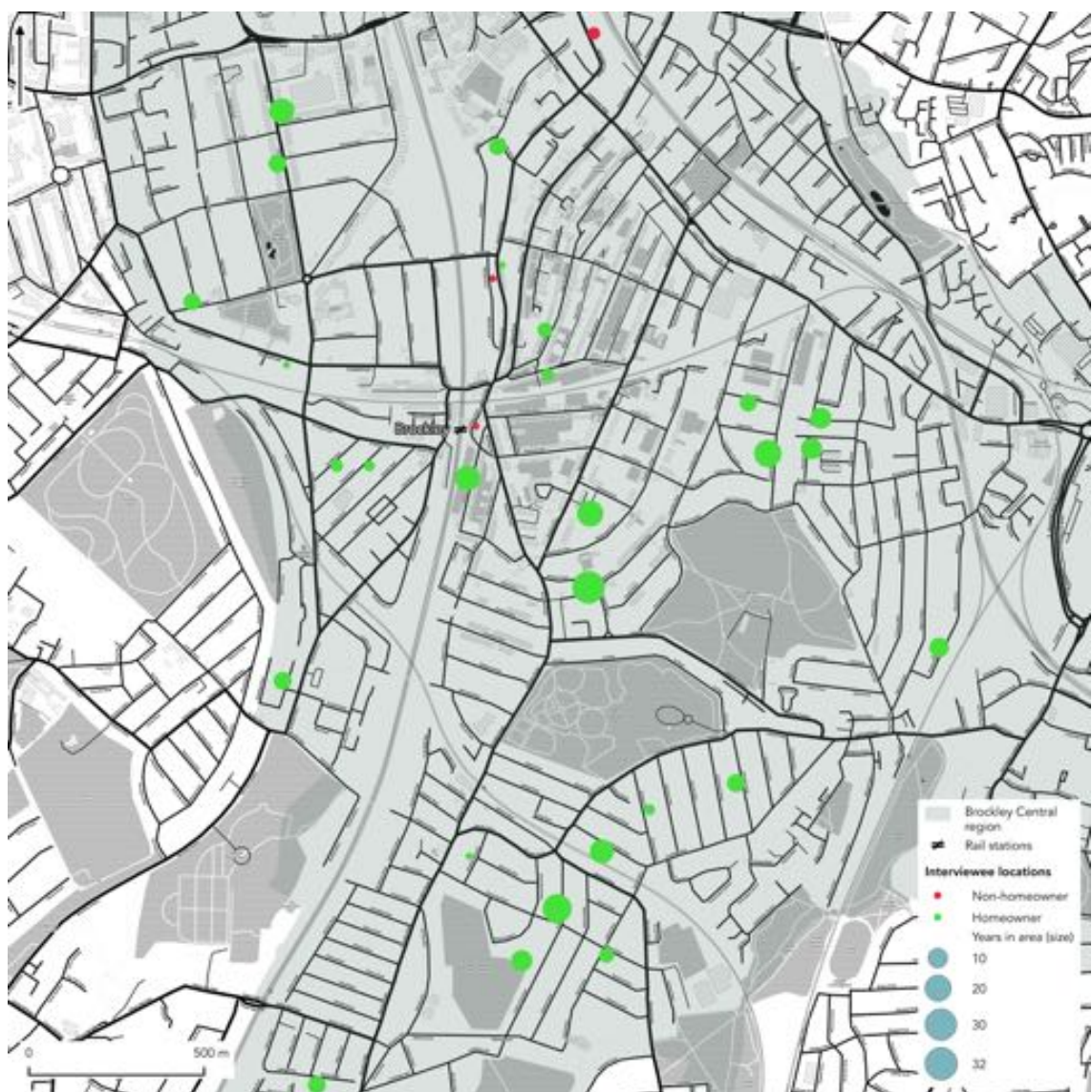
Figure 6.3: Home locations of interviewee respondents showing property ownership and number of years living in area. All fall within Brockley Central's region, 27 of 30 are homeowners, and longer term residents tend to live to the west of Brockley Road. Background of Brockley Central's imagined 2015 region for reference.

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

Figures 6.4 to 6.7 show demographic data collected in interview pre-questionnaires, profiling the respondents. Thirteen of them had moved to the area within the last seven years, and therefore would not have known Brockley before the blog Brockley Central started operating. It appears that newer arrivals were more likely to respond as the distribution is weighted towards the lower end. Having said that, over half also lived in the area before Brockley Central was set up, and indeed six of the respondents had lived there before the widespread use of the internet. One respondent was a very long-term resident in the 65+ age group that had started using the blog.
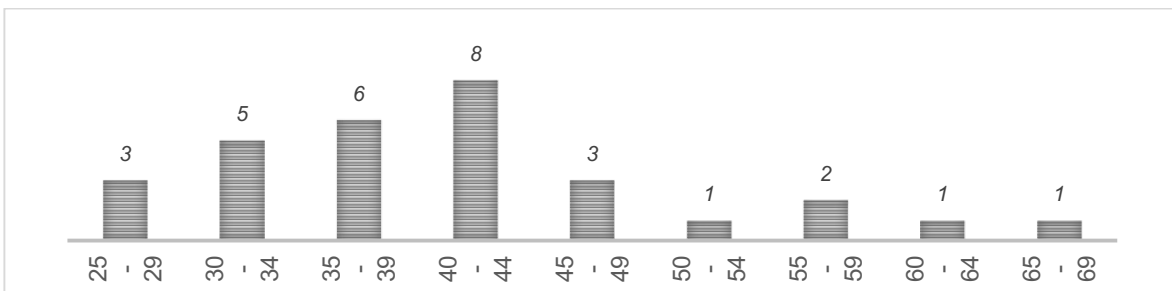
Figure 6.4: Age distribution of interviewees at times of interview (n=30)
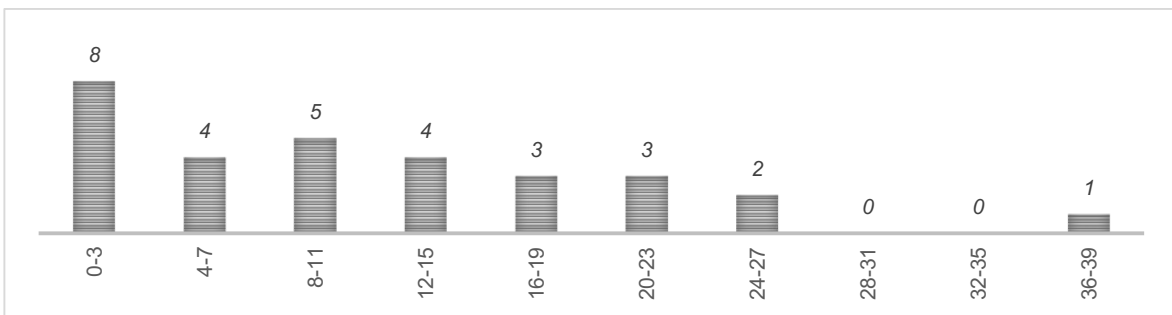
Figure 6.5: Distribution of number of years living in area at time of interview (n=30)
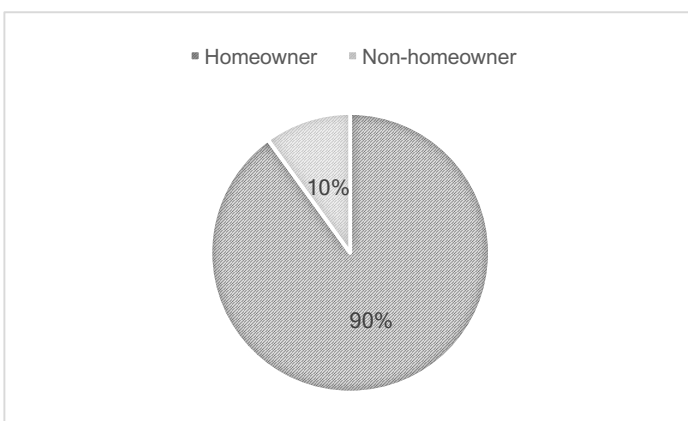
Figure 6.6: Pie chart showing distribution of answer to question "do you own your home?"
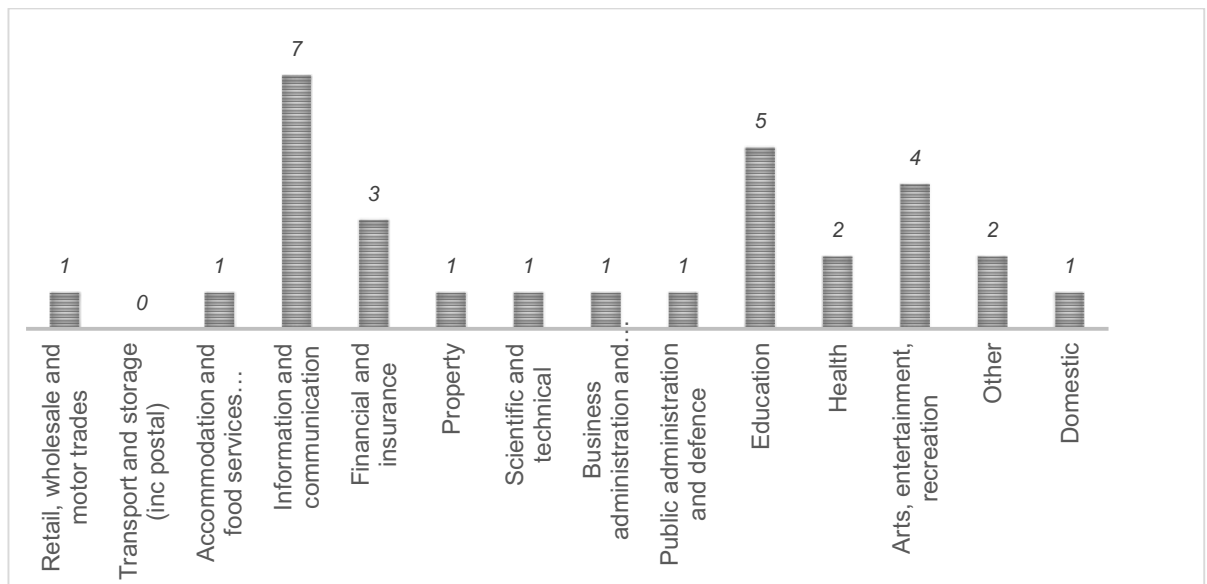
Figure 6.7: Bar chart of distribution of occupations

The distribution in ages shows a skew towards younger people under the age of 45 overall, but a concentration towards middle age. This is a different trend to overall nationwide figures on internet usage, which are highest in the youngest age groups and decline steadily as age increases (Source: Office for National Statistics 2013). It does perhaps reflect more accurately the specific use of the internet for posting opinions on civic or political issues in nationwide figures, which suggest that this activity is most prevalent in the 25-34 age group (15% of people) and similarly popular in those aged between 16-24 (13%) and 35-44 (12%), levelling out at 8% of people for those aged between 45-64 and 5% over 65. So whilst the interview data here is dominated most heavily by views from those aged between 30 and 45 it fairly accurately reflects typical users of the internet for civic engagement. The most common employment types, following the categories determined by the Office for National Statistics, were respectively "information and communication professionals", "education professionals", and "arts, entertainment and recreation professionals", accounting together for half the respondents. "Finance", "science and technical", and "property and business administration", were also represented, as well as one domestic worker. The percentage of Lewisham residents educated to degree level (48.5%) is higher than the London average (41.2%) and nearly double the national average (25.6%) (Source: Office for National Statistics 2013). Employment rates are also very high, within 2.5% of the highest comparative borough in the UK. Nonetheless the fact that respondents were almost entirely professionals and home-owners represents a middle-class skew that is definitely not unrepresentative of the area as a whole, but is likely reflective of the audience for Brockley Central. Reliable third-party data for Brockley Central's audience is not available, and anyway it is almost impossible to gather and

amalgamate proper demographic data across social media and blog users. Nonetheless in February 2013 Brockley Central's publisher did make available the limited audience data he had at the time (Barron, 2013e). In his own self reporting, Facebook was used as a proxy for his audience, as it captures the richest demographic data of any social media site and makes it available to page operators. Of the 1600 Facebook users that had 'liked' his page at the time, over 75% were between 25 and 44 years old, with only 15% over the age of 45, showing a similar distribution to the respondents in this study. The profile of people chosen, then, without any demographic stratification in mind follows similar patterns in age to the audience of Brockley Central's Facebook page, and to people who use the internet for civic purposes. The emergence of this demographic suggests a hyperlocal online public realm dominated by the young, educated and middle-class. The implications of this will become clear in the experiences reported by interviewees themselves. This is not to suggest that the interviewees are represented of the population of Brockley's population, or Brockley Central's actual or potential audience across various channels.

6.4. Analysis

In what follows the interview data is explored according to interpretive themes, with specific responses grouped under these themes. Whilst most of the themes explored emerged repeatedly in quite explicit ways, their statistical weight was not a core concern. Even a single instance or anecdote can be the basis for an important interpretation. Similarly, the interviewees *own words* are made extensive use of, with the ethos that the researcher cannot necessarily interpret a more fundamental meaning than that reported by the respondent. The use of these anecdotes suggests many *possible* modes of interplay between human agency, space, and communication media, rather than a statistical 'truth'. The results are intended as the fullest possible representation of *this* dataset, but not necessarily of the whole of Brockley's population, or of Brockley Central's audience. Every quote is referenced with a number in square brackets allowing it to be cross-referenced with the numbered interviewee profiles in appendix 2. Where absolutely necessary, contextual information about the respondent's life circumstances, the setting of the interview, relationship with the researcher or mode of initial contact are mentioned. Quotes are removed as much as possible from any information that could allow instant identification of the interviewee however, partly for privacy but also to highlight the commonalities of experience across all respondents.

6.4.1. "Just being informed": the symbolic value of local knowledge

One of the first questions asked of all interviewees was whether they read any blogs locally. Clearly for those who had responded via Brockley Central, this would be one of them, but of the fourteen that were contacted by other means only two of them did not know of the blog. It was overwhelmingly the most popular local blog, with only a few others blogs mentioned, and these covering neighbouring areas. This question usually led to a discussion of how and why the respondent reads Brockley Central. Many discussed their tactics for accessing local information, finding ways to filter geographically the overwhelming amount of information online. One respondent used the word 'Brockley' as search alert on Google, meaning they received a notification every time a new search result appeared containing this word, which she recalled often being news stories on Brockley Central. Another described a targeted use of Twitter for local information: *"sometimes I'll search #[postcode}, #[placename], sometimes #[subject] just to see what's occurring"* [29]. These were unusually proactive techniques however: one of these interviewees was a ward council representative with a responsibility to be constantly informed about events in the area [22]. Another respondent used Twitter's list functionality to collect profiles that regularly tweeted information relevant to Brockley, again taking an unusually proactive approach strongly shaped by an awareness of Brockley's administrative boundaries: *"Predominantly it will be SE4 but if it's something from round the neighbourhood, what I see as the boundary, I'll add it as well… I take people out if I find out what they're sharing isn't relevant any more"* [23]. Another used a locally-focused list to *"manage the chaos of the Twitter feed… From scrolling through my feed, seeing what the people I'm following are retweeting that has a local interest… and adding it to the list if I feel it's something relevant"* [29]. Twitter was commonly the access point to the blog: rather than visiting the site directly, people saw links broadcast by @brockleycentral or others of the kinds of well-connected local sources that have been described as the mediated centre of its network, and followed these links to the site. The implication of this for several was a feeling that they missed much information that could be beneficial for them. Those not employing tactics to manage the "chaos" of the Twitter feed found information and discussions relevant to Brockley became lost amongst tweets from sources they had followed for many other reasons. This highlights the important difference, discussed previously, between the apparently stable links of Twitter following relationships, and the messy and unreliable way in which they actually work as informational pathways, let alone social ties. *"With your Twitter you're not focusing on that [local information] but you're following, and it's gone in a second. It's cascaded all the way down and you miss something"* [23]. It also highlights the way hyperlocal media 'piggy backs' on existing modes of communication rather than trying to establish entirely new protocols.

Whereas the defunct network Hyves, described by Martijn de Waal, predicated an entire communication platform on discussion of hyperlocality, these respondents see local information as just one reason for establishing communication pathways, amongst many other reasons, in an existing communication setting. In Erving Goffman's terms, Twitter is a communication setting characterised by high levels of information noise, competition over attention, and an unfocused mind-set that does not lend itself to the sustained communication of political deliberation or inter-subjective revelation. It is also public though, in the sense that conversations can be overheard (or perhaps in relation to Twitter *overseen* is more accurate) and lead to unplanned encounter. *"If you miss what somebody said, often you'll see someone commenting* [by replying on Twitter]. *There's a communication… It's not direct, it's often indirect"* in the words of one respondent [25]*.* This publicness is what allows local communication pathways with strangers to be established via businesses, when people publicly respond to or get retweeted by them. This is in opposition to Facebook for which an existing offline friendship is usually a pre-requisite to establishing the analogous 'friend' relationship on the site. *"I think Twitter would be the way I would access quicker localized information. Obviously I'm following more local people on Twitter than I am friends with on Facebook"* [12]*.* Two interviewees described a targeted use of the blog stimulated by awareness of a specific issue. One described that *'if somebody says "did you hear about such and such?' that's the first place I'll go and look and see if there's anything about it"* [5]; another visits Brockley Central proactively *"if I know something's going on, news of a new development or building, or a shop opening* [17]. This mode of use suggests someone well embedded into the area, with effective channels of communication by other means, looking to follow individual controversies as they unfold. Indeed, the interviewees quoted are both in this position: one is a blogger who writes in a personal rather than news-focused capacity but whose online profile name references Brockley, and who has both lived and worked in the area for 18 years; the other a business-owner.

Most interviewees, without these established communication positions, did not report targeted use, or employ proactive wide-net search tactics to access a range of local communication settings. They would be described as casual visitors to Brockley Central, who read it more like a newspaper and allow it to be the main basis on which their understanding of what is at issue in the local public realm, rather than using it to build on pre-existing knowledge: *"it's the go to spot to find out whether something's being built, new businesses, how businesses are doing, how people are responding to different things"* [12]*.* This quote raises a key theme that emerged across almost all account from readers interviewed. Brockley Central, as a hyperlocal channel consisting

of several communication platforms, was always valued as an informational resource but rarely as a medium to contact other local people or as a setting to deliberate the issues framed, via the comment forums on a blog post or on Twitter for example. There were many reasons for taking on the role of spectator rather than interlocutor. Several were taking a conscious choice to retain a distance from local social life, using the facilities it has to offer rather than entering into the direct relationships that are more characteristic of community type relations: *"I'm not looking to join lots of things. It definitely enhances your leisure time and your experience of living here. Because you find out things that are going on and you're able to use your local area. And I think the more we use things, the better it'll get. So it definitely enhances living in the area having access to that information… I'll actively go and look, ahead of the weekend, to see what's on" [11].* Being informed, then, was not a political choice but an indirect way of contributing to the vitality of public life through supporting commercial activity.

Even if some did have in mind the more political potential of the blog as a forum for civic action, a sense of the lack of efficacy of the individual in this debate tempered this. *"It's more about being informed. Because I don't necessarily feel I would be able to influence that [a specific planning application]. Not as an individual" [29].* A major factor in this was the sense, on behalf of interviewees, of lacking the expertise to comment on many of the issues being framed, particularly in relation to urban design and building control. *"I'm not terrible active in these things. It's not my skillset, and I don't know what I want… I couldn't really look at plans and say that's a good building or that's a bad building to have there, or what the needs are" [9].* This highlights a major issue for the imaginary of social media as a civic tool in cities, which it was argued earlier gives rise to the notion of technology in the hands of citizens being equal to 'smartness'. It has been argued here that despite Twitter's potential for lateral communication channels, most of the peer-to-peer association and communicative action in Brockley takes place via the triangulation of high-profile local actors. The comments section of the blog offers the opportunity for individuals to access a local audience more easily, as all comments are equally visible on the page. To mistake this levelling in the means of communication for a levelling in participation though would be to fall into the trap of technological determinism,[22] assuming that the form of the medium itself guarantees a certain mode of communication. Citizens with Twitter accounts are not automatically smart or engaged. Instead, a complex of self-reflexive issues inhibit participation: *"I don't always know what my views are, or it would take a while to think about and articulate them, or be confident in doing that" [24].* We should

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[22] See (Graham and Marvin 1996, 80-83) for a comprehensive account and critique of technological determinism in urban communications

not necessarily see this as a negative. Observational, passive behaviour in "online communities" such as chat rooms and technical support groups has been called "non-public participation" in a study of 375 online discussion boards (Nonnecke et al., 2006). In other words, those that use such settings purely to seek information but not to contribute it are participating, but in a way that is not publicly visible to the rest of the participants. Such participation is invisible within the communication setting of the board itself, according to Nonnecke et al., meaning it has rarely been acknowledged or observed in studies that tend to see written content as the totality of information within an online platform such as this, yet represented nearly 20% of visits. This highlights again the issue of studying technology with technology, but also affirms the commonality of this mode of engagement with the internet. Hyperlocal media should not necessarily, therefore, be seen as something that automatically can or indeed *should* be a tool for actually changing the built environment.

Michael Warner, in his extremely valuable theoretical treatise on the formation of publics, argues that publics are always "uneven", in the sense that "some publics… are more likely than other to stand in for *the* public, to frame their address as the universal discussion of the people" [original emphasis] (Warner, 2002, p. 117). This effect was clearly observable in the experience of interviews, and related to one of the most common reasons given in interviews for non-public participation. All Brockley Central's posts, in varying degrees according to their level of controversy, do stimulate a barrage of comments. *"If you look down all the commentary you get the same names over and over again. You get the feeling it's a small group who all know each other socially and are communicating with each other, commenting on whatever story" [17].* A list of the top commenters taken from the site's chat functionality provider Disqus confirms this interviewee's experience. In April 2015, five registered profiles had commented one hundred or more times while only twenty had commented twenty or more times. Like the @brockleycentral Twitter network, the blog's chat functionality is not an even distribution of involvement but heavily dominated by a few very vocal players. Interestingly, one interviewee was able to recognise these key players amongst the discussion by references to personal locations that could only be known to people who encountered each other outside of this communication setting. *"You have this clique, because somebody posts anonymously and someone else knows who they are. You can tell by their comments they know who they are. 'Just because you live in a £400,000 flat' or whatever. And you think hang on" [25].* This suggests that rather than forming new connections the blog comment section is a new setting within which existing associations, and often negative ones, are played out again and again. Richard Sennett's use of "theatrum mundi" (Sennett, 2002, pp. 34–36), or 'the world as

a stage', expands upon the notion of the uneven public. Public deliberation is performed by a small number of vociferous local actors on the stage of the blog's comment section, for the eyes of a large, silent audience of public neighbourhood life. The stage is inherently an uneven communication setting: those on it are handed the right to a monopoly over the creation of the public sphere in that setting. This unevenness was perceived with a mix of reactions. For some it was an extremely negative arena from which to protect themselves through non-participation: *"there used to be loads of trolls, really abusive"* [4]; *"it's a bit like cyberbullying… I used to get really angry and write back to people but my boyfriend told me to stop, and in the end I just stopped looking"* [8]; *"sitting at home and saying negative things is very easy when you're not having a face-to-face interaction"* [12]. This latter remark highlights the fact that even though this debate is taking place in relation to a specific locality, it is neither constrained by any of the social norms that regulate polite face-to-face public intercourse nor those that tend to impose conformity within close community relationships in isolated societies. *"I sometimes think people who do post have got amplified versions of themselves. They might write that but if you sat them down here and said did you really mean that, they might say no not really"* [18]. *"That's possibly the down side of it. Well not the down side but one of the things the blogs don't do. They make you aware of what's going on in the community but maybe perhaps don't do anything towards helping you meet people in your community… I think people like the anonymity of the blog or comments threads"* [14]. Others perceived it as an arena for the absurd, and found a kind of entertainment in witnessing the *"fraught and personal debate taking place"* [9], forming ideas of local stereotypes pitted against one another: *"you get this guy who's always trying to rile up yummy mummies. And the yummy mummies always reacting and pretending to be really urban. So it can be kind of funny but it's also ridiculous, the commentary"* [27].

Nonetheless this relatively closed debate does work as a representation of local social collectivity. Even if the content is sometimes skewed and unconstructive, and dominated by a few voices, it allows for the imaginary that there is a 'world of others' out there in the neighbourhood paying attention to the same issues. The specific opinion that those others hold in relation to these issues seems to be less important than the fact that they think something at all. This is essentially what Hannah Arendt was referring to when she characterised the public realm as "the presence of others who see what we see and hear what we hear assures us of the reality of the world and ourselves" (Arendt, 1987, pp. 5-6), and pointed to publishing (*making public*) as the mechanism by which we encounter that presence. Together with those unknown 'others', who are represented by self-appointed spokespeople that dominate the

production of local opinion, an individual can conceive of a virtual social grouping of 'we' that is together without being in contact. *"I think a lot of it's a wider discussion about what we want this area to be like as well, so I would take an interest in those. And I enjoy the humour on Brockley Central" [24].* Though describing their observation of discussions that they themselves do not take part in, this respondent refers to 'what we want'. So whilst there are aspects of 'just being informed' that derive from limitations in the way Brockley Central works, or indeed does not work, as a forum for public deliberation on issues affecting the local built environment, this last point raises the potential in this one-way flow of information. This illustrates what Sandra Ball-Rokeach means when she describes, as referred to at the end of the previous chapter, the role of local media as being the distribution of "stories about 'us' in this geographical space" (Kim and Ball-Rokeach, 2006, p.178). The connection between the observer on the hyperlocal blog and that 'us' or 'we' is invisible technologically – it has no trace on Twitter or on the blog – and purely imagined, but seems fundamental to the ability to experience Brockley as a social entity.

Similar language came up throughout the interviews, suggesting slightly different perceptions on behalf of each individual of their own relationship to this imagined social world of Brockley's public. Several used the word 'people', suggesting that they valued the opinions publicly expressed on the blog's comment section and via Twitter as a barometer of collective reaction on behalf of Brockley's population: *"people critique and complain about what's going on, different things that are happening, small businesses starting, closing, who you support" [12].* 'People' as a general conception of who populated Brockley Central could also become a totalising concept: *"we know the people downstairs read Brockley Central as well, because everyone does" [1].* Another invoked a more civic sense of being informed as a social good: *"having some engagement with where you live is quite important, and the whole concept of society is quite important" [17]* and this engagement was described as *"having a level of knowledge…wherever you live"* [17]. For this individual, then, being informed about current affairs was as important on a local scale, but that knowledge seemed to be a sufficient definition of having an 'engagement with where you live'. Warner argues that publics are "predicated purely on the 'merest' attention and lack any 'institutional being'" (Warner, 2002, p. 89). In other words, simply paying attention to texts is a sufficient means of participation in a social collectivity, without the requirement for the institutional aspect of communities, with their organised network of interpersonal associations. So the "merest" acts of reading and following Brockley Central, witnessing the communicative associations that take place on the blog and between well-connected Twitter profiles in its network, translates into a sense that the lived

space of Brockley as a neighbourhood is imbued with sociality, even though in these examples that sociality is encoded in mediated communicative exchanges that are not visible in the spatial public realm. 'The public' that is invoked and referenced in relation to national policy issues is essentially an imagined entity too populous to congregate in space and therefore only existent through participation (i.e. through reading) in the mediated framing of national issues. Similarly, Brockley Central's readers can imagine a hyperlocal public for the issues framed by Brockley Central without the need to witness this public as a gathering of neighbours in space. The word *public* is absolutely key here, and distinguishes Brockley Central from a virtual community. In one of the two definitions given earlier, virtual community is one that exists purely in and for the sake of communication between its members over a given topic (Loureiro-Koechlin and Butcher, 2013), and relates to the notion of "community without propinquity" (Webber, 1963) in which the increasing specialization of work leads to communities of practice that must operate across ever-larger regions of space to find enough people with that the specific transpatial identity that includes them in that community. Brockley Central *could* theoretically operate in this way, with the given topic being Brockley, giving rise to a network of communication about that topic between people for whom it is of interest, who might be anywhere in the world whilst partaking in that communication but who we would assume to be people that have a spatial tie to that location, through working or residing there. Brockley Central operates slightly differently though. It does exist purely in communication but it is not a virtual community in which members partake evenly to discuss a topic in private. Instead it is an open, mediated communication setting in a which a few voices create a debate that works as a representation of opinion both of and for Brockley's public. It is perhaps best described as a *virtual public*. One interviewee hinted at the difference: *"community is not quite the word… I think there's something quite mythologizing about Brockley Central. Like before the Gantry opened there was such a fervour of waiting for this new place to open" [9].* He was amongst the majority that explicitly did not take part in online discussions, but despite this lack of direct communication the blog had the ability, for him, to transform a specific built environment change (the opening of a new business) into a collective local experience. Non-discursive symbolism is a useful way of thinking about this communication. Perhaps the contents of the communicative transactions are secondary to their role as symbols signifying the existence of a local social collectivity. The social only exists in acts of communication and has no stable reality of its own. For Ricoeur, "substituting signs for things and of representing things by the mean of signs appears to be more than a mere effect in social life. It is its very foundation" (Ricoeur, 1971, p. 559). When communication is enacted online by means of signs – in mediation – it has the potential to be visible to a larger and spatially farther-reaching

audience than the background witnesses of a friendly face-to-face encounter in the street or a café. Communication in signs – in the written and visual forms of the internet – also leaves a trace encoded symbolically in the architecture of whatever platform it is staged upon: a comment on a blog, a retweet or reply on Twitter. Over time these traces build up as a kind of archive of momentary communicative acts frozen in time, that build into a representation that starts to look like 'society', playing out in the highly localized, portable and visible form of a hyperlocal blog.

The virtual public then comes into being through the extraction of information from the public sphere. Nina Pearlman has described this in terms of "uploading" – the reality-forming act of publishing on behalf of a hyperlocal blogger for example – and "downloading" – the participation in that reality and its public realm through use of a common material (Pearlman, 2010) – by the blog's readers for example. Despite this uploading and downloading being a largely immaterial process, its effect was carried into encounters with the material world. *"The existence of blogs has been transformative in that beyond that day to day existence there is some sense of understanding of the community dynamic or something, which is definitely enriching" [7].* Contrasting the "day to day" with something that is "beyond" reflects Habermas' theoretical counterpoint between system and lifeworld, that highlights why it is a fallacy to equate locality with immediacy. This interviewee, who had lived in the area for 11 years, knew it before she was a reader of the blog: *"although I was working very locally most of my colleagues didn't live in the immediate area. Apart from my flatmate at the time I only really had one other group of friends who were from university and had moved to Brockley from visiting us there. But we didn't know people otherwise so our engagement with it was much more from walking around"* [7]. By "walking around", she saw Brockley from the perspective of the material lifeworld – a realm of concrete visual information based on the character of urban space and the people within it. Habermas characterizes society as a system of mass culture beyond the immediately visible. We could add, though, that society happens at a hyperlocal scale too. One interviewee implicitly invoked the difference this represents in network terms: *"you have sort of that that thing of London life, not necessarily knowing who all your neighbours are, not being in a village, but then you have a kind of layer on top of that that performs some of the functions of it so I think it's kind of like the best of both worlds. Because there is this perception of it and it does sort of exist, but at the same time it doesn't." [1].* There will always be dynamics playing out in localities: controversies, opinions about controversies, politics, power struggles between key figures, and so on, however trivial. The "village", as an imaginary for a particular social form that may barely in reality be manifested in the contemporary Western world, represents the idea of a total network

in which everyone has face-to-face contact with everyone else. In network terms, the ideological village is a graph of social contact unreliant on any communication technologies with a clustering coefficient of 1. In this situation, information flow is perfect, allowing everyone access to discursive knowledge of the systems at play in the village through direct interpersonal contact. These systems cannot be seen in space though, even if they relate to locations passed. So where there is not a perfect social network to deliver information, they are only made visible through framing in media – whether a blog, a newspaper, a newsletter, or a poster. The internet does not create the system "beyond the day-to-day existence" or the "layer on top" that these interviewees refer to. Rather, the media that are built on it give access to the system of dynamics that is invisible within the lifeworld. Any form of written media could do the same, but the intense hyperlocal information flows that the internet makes economically and logistically possible make it *easier* for *more* people to access, in terms of being informed but not necessarily involved, those "community dynamics", that would previously have relied on greater time-space commitment in accessing physical media or settings for face-to-face communication like local meetings. It is not necessary for everyone to know everyone, which as we have seen is anyway not the case even within the potentially unrestricted social networking of Twitter, to create the "perception of [being] in a village". For readers of Brockley Central, a picture of the hyperlocal system is carried into physical encounter with the lifeworld, which can be "transformative" and "enriching" in comparison to the experience of the area before the existence of a hyperlocal blog, according to these anecdotes at least. What matters then is not for people to know *one another*, but for everyone to know the *same things*, becoming a virtual public of interest that becomes tangible by the convergence of its physical location with the framing of that physical location as the subject of interest. In this sense, and in a way that is hard to define, hyperlocal media can be thought of as being carried into the lifeworld of the neighbourhood as a mental representation of shared public life in the minds of its readers, rather than manifesting as a network of connections with any materiality in that space.

6.4.2. Third places and the public sphere: business as interface

It was shown in chapter 5 that third places – such as local cafes and bars – play a central role in distributing the information broadcast by Brockley Central on Twitter, and hinted at that they set up associations in other ways too. To recall, businesses are followed on Twitter by many of Brockley Central's followers so that when they tweet and retweet links to the stories it posts the likelihood that these stories will reach their audience is increased. Another of Warner's maxims on which the definition of publicness is based holds that "in order for a text to be public, we must recognise it not simply as a diffusion to strangers but also as a temporality of circulation" (Warner,

2002, p. 94). In other words, it is not enough for an issue framing to exist as a static text. In order for it to gather a public around it, it must achieve a life-span, or "temporality", that asserts the issue it concerns as one that is current and ongoing. "Circulation organises time and vice versa. Public discourse is contemporary, and it is oriented to the future; the contemporaneity and the futurity in question are those of its own circulation" (ibid.). Warner was writing before the advent of social media as we understand it now, and postulated that the web, which at the time consisted of relatively static, non-interactive and slowly-changing networks of texts, might halt the importance of circulation. To the contrary, technologies such as Twitter are the ultimate circulatory medium, in which stories spread rapidly via retweets (see Kwak et al., 2010, for evidence of this) and often populate the Twitter-sphere long after their immediate relevance, fuelled by the desire to share (Bhattacharya and Ram, 2012). The relevance of this here is that business-owners in Brockley are essential to the sustained circulation of the stories Brockley Central posts, helping them to achieve the status of public texts that are linked to locality and sustained through time. They also help to diversify the sources from which a story reaches its public, in what has been called a "cross-mediation" that reinforces the impact that stories have on their audiences (Spencer, 2010, p. 12).

So businesses with an online presence play an important role in fuelling the coalescence of the local public, but are also fascinating in several ways as physical interfaces between internet-mediated, print-mediated, and face-to-face circulations of stories within Brockley's hyperlocal public realm. Before discussing these, it is worth mentioning the centrality of the third place to Habermas' theory of the public sphere. In *The Structural Transformation of the Public Sphere* (Habermas, 1991) we learn of the coffee houses of 17th century European cities, in which the middle class of craftsmen and shopkeepers began to mix with the bourgeoisie. In these settings communicative and learned ability was a stronger form of hierarchy than political status: there developed a protocol for rational, impersonal discourse that superseded social background. Like the forum and agora, the coffee house has become somewhat mythologized in urban thought as an ideal space in which purely unmediated communication fuelled both conviviality and critical political debate. This interpretation misses a crucial aspect of Habermas' account: newspapers and books were central to the discussions taking place in such spaces. Men (rarely women) gathered around both local prints produced within the city and those delivered from further afield – by post or a messenger returning from abroad – to read and respond to framings of issues that were both local and global in context. According to Thompson, "individuals who read these papers, or listened to them being read aloud by others, would learn of

events taking place in distant parts of Europe - events they could not witness directly...

The circulation of the early forms of newspaper helped create a sense of a world of events beyond the individual's immediate milieu" (Thompson, 2007, p. 98). So in fact the coffee houses were social spaces built on mediation, without which they would have lacked the framing of common knowledge around which public discourse is formed. Returning to Brockley, there are many parallels to be observed with elements of the role of these coffee houses in the public sphere, albeit ones that fall short of Habermas' ideal of a rational realm of political debate. At least six of the interviewees made specific reference to regular unmediated social encounters that took place in the third places of cafes, bars, and restaurants, mainly located next to Brockley station and south along Brockley Road. Unlike the coffee houses in which the 17th century public sphere of debate was emerging as a conscious protocol for interaction, these were all described as unplanned, stemming from the mechanism of shared habitual use of commercial facilities rather than a purposeful entering into a public communication setting. Nonetheless, these regular encounters do seem to go beyond the virtual association (in Hillier's definition) of potential connection through habitual co-presence, becoming realized through communication. *"Because I take the same bus home all the time I tend to see regular people... And in the Gantry talking to loads of people about the local area"* [3]. *"I would bump into people at Brown's and they would be like "hey we're having a BBQ at our place"* [26]. *"You don't go there because you think you might run into [X] from the Brockley Society, it's because you like it and it's convenient, and it just so happens that she's in here as well. So it's more a coincidence because you're all doing the same things at the same time, at the weekend. But when you meet them you will chat. You'll say 'have you seen that fly tipping' or whatever"* [22].

It is not surprising that third spaces can act as generators of associations in public, but the particular modes in which they do this are valuable to identify, as these modes become remediated and reveal more about how businesses become interfaces between the hyperlocal public sphere and public realm. Within third spaces, the potential for communication between strangers is opened up in a way that it was not identified to be in the more general, exterior spatial public realm of streets and infrastructure. Previously the notion of "triangulation" was referred to as the stimulation of interaction between two people via a third element simultaneously experienced (Carmona et al., 2003, p. 167). Businesses, and the designed facades they project onto the street as visual cultural artefacts, are what Carmona et al. call "socially active" (ibid., p. 69) elements that can perform such a role. Erving Goffman's notion of "communication setting" describes how architecturally-bounded regions that establish solidarity (i.e. through the shared identity as a customer of a local café) allow for

"mutual openness" between the unacquainted, with the "right to initiate and duty to accept an encounter" (Goffman, 1966, p. 131).[23] This could relate back to mediated communication via de Waal's model of social settings across technological and spatial platforms, consisting of the protocol of "specific behaviour experienced as generally applicable in a specific social context", the framework or "programme" giving rise to the behaviours and certain "filters" constraining access to that platform (de Waal, 2014, p. 22). The local café, in these terms, could be described as a platform for mutual openness programmed by its functioning as a commercial space for consuming food and drink and filtered through its inclusion of largely local customers with similar consumption preferences. It was suggested in the previous chapter that the network position of businesses creates the potential for a similar triangulation and a protocol for mutual openness on the platform of Twitter, and this is reinforced by the experience of one interviewee who recalled that *"if I've seen a retweet from someone [by a business]… I'll always check their account and what they're on about and what they do and that's the way I follow people locally" [6].* Goffman's pre-social media terminology once again works well to describe the mechanism whereby an individual who appears in the communication setting formed by the Twitter feed of a local business is more available to unknown onlookers. The person being re-tweeted by the local business is placed in an "exposed position", establishing a protocol for the unacquainted to initiate contact. Unlike in physical co-presence in the setting of the café itself, though, the communicative relationship set up by this triangulation in a social media setting is not symmetrical. On several occasions in the interviews it emerged that attempts to make use of these exposed positions to establish communication pathways with fellow local residents were not reciprocated. It is not possible to say why this is the case, but it is reflected in the social network data, which showed that there are few links between individuals on Twitter. Perhaps, despite the potential for Twitter to act as a forum for communication between strangers, many of the protocols described by Goffman in his observation of behaviour in public places still stand for Twitter, and a surprisingly high degree of familiarity and openness often needs to be established before mutual communicative relationships can be formed, with the mediated triangulation of local businesses' online presence being one way this could be supported.

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[23] It is worth noting as an aside that even in the 1960s, before even the very first mobile phones, Goffman described how newspapers and magazines "[allow] us to carry around a screen that can be raised at any time to give ourselves and others an excuse for not initiating contact" (Goffman, 1966, p. 131). The social shielding often decried as a lamentable side-effect of laptops and mobile working in cafés is not, it turns out, purely a phenomenon of communication technology.
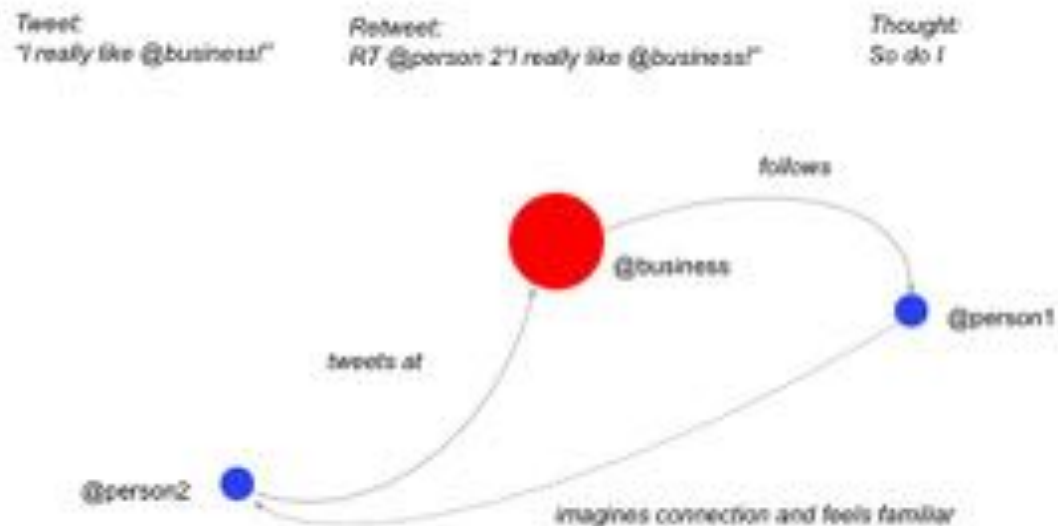
Figure 6.8: Schematic of business triangulating between individuals on Twitter. Person 1 follows the business. Person 2 mentions the business in a tweet. Person 1 imagines a connection with person 2 having seen them retweeted by the business, and looks to see "what they're on about" (in the words of the interviewee describing this process)

So third spaces, as both physical settings and as Twitter profiles, can triangulate between strangers. Similarly, media, and particularly issues, can triangulate between people *in* third places, supporting communication. As in the coffee houses, where people gathered around newspapers, unmediated and unplanned encounters within Brockley's third spaces can be predicated on communication pathways, information, or situations of mutual openness that have been established within the mediated public realm. An interviewee describing his regular visits to a particular café on Brockley Road recalled how issues framed by Brockley Central would become a topic of conversation with strangers: *"you would just get talking to somebody about the parking issues or Brockley Market or whatever and then through talking with them… you'd just meet"* *[14]*. In no instance was a similar situation described as taking place in the street, but the openness of the platform of the café combined with the mutual awareness of issues ("just being informed") provides a protocol for the establishment of a new friendship. One interviewee who did not actually identify as a Brockley Central reader herself described how it would often become a topic of conversation with friends she had built up through regular use of a café below her flat: "*someone will say 'oh did you hear about that thing on Brockley Central?' and everyone says 'oh my god oh my god'"* *[16].* Brockley Central in this case provides the impetus for public chatter amongst an existing group of casual friends. One interviewee described that *"I did actually meet [X] from South London Press once but it was more by accident. We were at the same place and she tweeted about it and I tweeted about it and I was sort of like 'is that*

you?" [6]. The communication pathway of a Twitter following relationship from a resident to a local journalist (another group within the core of public figures on Twitter) is activated here through the stimulus of using a local facility, and an extra degree of mutual openness is established through the even greater solidarity of identity that comes from being *both* engaged physically *and* through Twitter with that space. In another example, purely informational use of Brockley Central by individuals who consciously do not enter into social communication within the mediated public realm, sets up the potential for an unmediated social encounter in a third space. *"We don't interact with it [Brockley Central]. It's the things we go to where we might interact with people… We don't involve ourselves with the online community. But [X restaurant] for example they just put two words about it, and we just waited and it came, and we'd go all the time, and got to speak to them. And the deli as well" [26].* So even when a social situation itself does not appear to involve communication technology – speaking to the owners of a café over the counter – it is part of chain of interactions *including* hyperlocal media that leads to the generation of encounter within the spatial public realm.

Businesses interface with the circulation of information in another way too: they physically *contain* information: *"Like [X café] got something in the window there, that's how I hear about things" [15]. "Broca, the shop, not that I have extended conversations there. But there's a community noticeboard there with services and things" [17]. "I might pick up bits and pieces of information in Brockley Market, because that's a physical event. You say places, but that is a place really because it's there regularly. Sometimes people will give you leaflets there" [17]. "On the west side. Lots of the local shops still do the traditional printing things in the window" [28]. "I do see noticeboards. [X café] sometimes have a little pile of things" [13].* All of these excerpts are from interviewees who also specifically referred to Brockley Central as a valuable source of information, suggesting that online-native hyperlocal media has not wiped away a culture of informal print circulation but complemented it. Furthermore, it is clear once again that local businesses have an important role to play in sustaining channels of communication across different forms of mediated information. In a hyperlocal context, they are predicated on more than their explicitly-stated function but seem generally to be platforms to sustain the circulation of news both as physical settings – as these excerpts have described as shown in figure 6.9 – and as nodes in a Twitter network. One interviewee when asked who she follows on Twitter recalled that it is *"mainly the businesses on Twitter, and then through that I've got some odd ones where I seem to get a lot of the local neighbourhood stuff, like the SE23 Forum" [6].* This is a remediation of the idea of the community noticeboard inside a local shop or café:

community groups or hyperlocal news can reach audiences without direct contact by using businesses as channels to reach audiences. People who may not purposefully be seeking local news could equally come across it as a side-effect of looking to see whether a café has tweeted their daily menu and by going into that café to try it, for example. As an aside, this suggests the possibility of research that focuses specifically on the role of local businesses in supporting local *informational* capital, as their value has usually been framed in terms of the localisation of *economic* flows between business-owners, suppliers, employees, and so on.

Figure 6.9: A mix of community groups, arts organisations, and advertising leaflets in the window of a cafe on Brockley Road

It also seems to be the case however that communication within the platform of Twitter and blog comments is stimulated *by* the existence of businesses themselves. They are not only the setting for storytelling, but they also provide its content. In fact, whilst most of the interviewees did not value Brockley Central as a platform for rational political debate, either through lack of confidence in their own communicative expertise or in the quality of discussion, businesses provided one of the only points of commonality around which discussion could emerge. *"If there's discussion about a new business, people discuss whether it's a useful addition to the area, whether it will succeed" [17]. "There's a new pub opening here, or this might or might not be open, or is this the type of shop you want here, and I think there is that debate happening" [23]". "Twitter makes it really easy to start seeing people's conversations and joining into them… You see people discuss, is the [pub where interview took place] going to get sold" [1].* This willingness to talk about businesses within a mediated public setting is worth paying attention to. Critical contemporary discussions within urbanism, about the ownership and design of urban space, its management through political frameworks, or the way the shift from public to commercially-led housing development is shaping neighbourhoods, for example, are all specialist realms of knowledge that struggle to get a foothold in the modes of storytelling that populate a neighbourhood blog concerned with importantly mundane aspects of daily life. They are also all issues that can be abstract spatially: they cannot always be pointed to in single locations and are more visible in long-term systemic change at an urban scale than they are within the immediate lifeworld of the neighbourhood. Local one-off businesses on the other hand are recognizable landmarks in pinpoint locations, standard-bearers for local distinctiveness, and the providers of services that impinge on public life on a daily basis. In fact, when attempts were made to draw interviewees on specific built environment issues such as planning applications, it turned out that businesses were almost exclusively the way in which people related to these. Following the realisation of the importance of issues in stimulating the public, people interviewed later in the data collection period were asked for their opinion on a specific development site at 180 Brockley Road (the largest property development in Brockley at the time of research, which will be returned to in more detail later) but only one knew of it by this name, despite regular references to the address on Brockley Central. Instead, it was commonly known as the site of, reportedly, a new Sainsbury's, and the issue was framed in individual's minds not in terms of the impact of a new building on the urban fabric but as the impact of a chain supermarket on the local business ecosystem. *"When there was an issue about Sainsbury's being given the license there was a difference of opinion. Some people love that there's a new supermarket whereas others see it as a corporate, not takeover but you know. Some people wanted an*

independent shop, but then there aren't that many people who have the money to set up an independent shop. So you get a snapshot of opinion" [22]. Gentrification was rarely raised explicitly but also seemed to be playing out as a battle between expressed consumption preferences and the way they should be catered for: *"there was this war between the 'Mung Beaners' and the 'Real Food'. So someone would say 'there's no local cafes in the area' and someone would say 'there's loads of cafes where you can get real honest food'... I mainly just read the comments now"* [14]. So not only are the communication protocols of local business remediated as the basis for online encounter, the mediation of businesses themselves as issues in their own right and as proxies for discussing physical change in the neighbourhood constitutes a large part of the basis for online communication.

A final theme in the way businesses stimulate and populate the mediated hyperlocal public realm is through what could be thought of as a performance of community-mindedness by businesses, through which a wider public can construct an imaginary of local cohesiveness. The previous chapter showed that Brockley Central's Twitter network had a core of densely-connected profiles – including businesses as well as other media channels, local politicians and organisations –followed by a large public of loosely-connected profiles that were presumed to consist largely of those representing individual people with no particular communicative status in the area. Network measures pointing to a clique of profiles including many local businesses, and in even more detail demonstrating network communities linked by the proximity of a few streets, are illustrated in anecdotes from interviews describing both the processes by which this clique is formed and the effects it has for both participants and onlookers. This also reinforces the argument made in the introduction to this chapter for synthesising data-first and qualitative media research. Drawing links between the analysis of aggregated machine-readable ties such as following relationships in a network graph and analysis of the effects from an individual perspective of activating those ties as communication pathways, as is done here, makes for a richer understanding of how those hyperlocal networks are at play in place than either one or the other methodology could alone. One interview was carried out with a local business owner [24] whose description of using Twitter locally reinforces the suggestion that businesses following @BrockleyCentral are networked as a tight clique, and suggests why it is particularly valuable for independent businesses run by sole operators: *"Twitter's good for businesses, better than Facebook… It's very much promoting shop and use local, and they're very much doing it to support each other... Since I've been*

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[24] Sadly between the data collection phase of this work and the time of writing the business in question has closed down, but it remains a valuable illustration

on there I have found that most other businesses around here are on it, so it is a good was to connect to other businesses… If you're each in your shops - you normally work with someone and have a good work relationship - but you don't get that if you're in a shop. You can't leave and talk to your neighbours. But through Twitter. I know it sounds silly but you're not necessarily going to email people. Twitter is more informal. It just means you can build up a relationship but you don't have to leave your shops" [8]

She recalled instances in which the network of links built up with nearby businesses for these reasons gave her access to valuable social capital: a message posted on Twitter about a thief spread so rapidly through her network that they were apprehended at the station; a fellow business owner saw a message asking for help and brought supplies she had run out of and was unable to leave the shop she runs on her own to collect. In her words *"I'll tweet things like 'I really need to borrow a hammer', and then someone from another shop will walk down the road with a hammer. Things like that happen all the time"* [8]. Though these are one-off anecdotes they demonstrate the potential of the 'small-world phenomenon' on Twitter to manifest clearly in spatially-embedded social relations when it is linked to a specific region in space. Undoubtedly mutual support between local businesses has been common in small neighbourhood centres long before the advent of social media, but its remediation and performance through Twitter makes it publicly visible in ways that generate other kinds of benefit. Her creation of a support network on Twitter for her own benefit means, and the visibility of this, means she is in a strong position to organise businesses as a community. Another interviewee described this business owner as *"big on Twitter. She's key in our community. That woman is key to galvanise us to do things"* [4] – and as a source of information about events by several others. Another resident, who emphasized her unwillingness to use Brockley Central or its related social media to communicate actively herself, suggested that despite being excluded from this small world, individual residents derive an indirect benefit from witnessing it play out publicly online: *"What's really nice is the community between [X restaurant] and these guys [X deli]. Because they don't take card. So [the restaurant] were tweeting saying 'if you can't get a table go to [the deli] and you'll get 10% off your drinks', they were retweeting and posting saying 'we'll give you cashback so you can go and get your food'. Seeing it all on Twitter was like this really sweet community feel. They interact with the [X brewery] as well. So they'll say 'Come along, BYOB, pop down to the [brewery]' which is just down the way which is great. And that's really nice because you feel each other are supporting them. Because you can't single-handedly support everything every day. But it's nice they're working together"* [27]

Here she describes a network of cooperation between three proximal businesses, in which each regularly encourages people to use the facilities of the others: getting cashback on your drinks from one to spend at the other that doesn't take card, or buying beer from the local brewery to drink at a restaurant that is unlicensed. The advertising of this through Twitter worked as a performance of public cooperation that was perceived as "sweet". The parochialization of both Twitter and of the urban space shared by these businesses through these visible supportive acts is a kind of "public familiarity", as de Waal (2014, p. 70) describes it. It also evokes the notion of "social viscosity" proposed by Lily Shirvanee and quoted by de Waal (ibid.), a thickening of the social character of a space through the awareness of associations carried out online. Though these examples do not specifically impinge upon Brockley Central they highlight the notion of *performance* which permeates respondents' experiences of hyperlocal media in this research. As has been a theme throughout, respondents perceived a 'sense' of community by witnessing direct communication between others – whether they be businesses helping each other on Twitter or spokespeople debating in blog comments – without needing to invest in those direct relationships themselves. A different type of value emerges, in which highly visible actors perform as standard-bearers for the existence of a local public on *behalf* of a much larger audience of quite disconnected residents. This performance is translated into an emotional orientation towards the local space, with a reinforcing relationship between mediated communication and spatial proximity. Without proximity, this kind of cooperation between physically-situated businesses would be meaningless. Clearly, no-one would go for a drink at one café and walk an hour to the next to use the cash they had withdrawn. Without the communication pathways established through Twitter following relationships between them and from their many individual local followers, businesses could not translate this proximity into a widely-visible public demonstration of common will. So whilst links on Twitter are in the immediate sense immaterial (ignoring the distant but highly material network of heavy metals, cables and server farms that carry these locally-invisible communication pathways) they are activated in ways that translate directly into the potential for specific pathways through the space between those businesses. People crossing from one to the other, for example, in an expanded parochial realm of familiarity. So not only can this cooperation parochialize Twitter, which is itself what Lofland calls a "world of strangers" (Lofland, 1985), this parochialization can extend literally into the streets of Brockley.

It seems highly likely from both the network analysis and the experience of interviewees in Brockley that a rich ecosystem of independent local businesses is highly valuable in establishing a hyperlocal public sphere that goes beyond the single

source of a local blog and is able to circulate information between media (both online and offline), through time, and in space. While the value of small locally-owned business has rightly been asserted in economic terms (see Hall, 2011 for a demonstration of this in neighbouring Peckham) there is definitely scope for a specific focus on their importance to local communication ecologies, which has emerged as an unexpected finding within this research. Just as coffee houses were deeply urban phenomena, this also reinforces the idea that the mediated public realm is still closely tied up with the city. In the 18th century reading publics were concentrated in cities and towns because they were the location of educational resources and offered the spatial concentration justifying investment in both printing presses and commercial meeting spaces. In the case under investigation here, the hyperlocal public is predicated on issues, audiences, and means of circulation, all of which are concentrated in a dense mixed-use high street like Brockley Road. Businesses are one of the clearest ways in which the circulation of stories and issues through local media networks interfaces with Brockley's physical lifeworld.

6.4.3. The blog and the lifeworld: contact and severance

Beyond local businesses, and their creation of mutual openness in space and online, there was often a disjuncture between people's experience of Brockley through mediated framings and their embodied use of the lifeworld. Mostly, for the interviewees in this research, association with or witnessing of other individuals online – via @BrockleyCentral or in the blog discussion forums – failed to materialize in encounters carried out in person. In terms of direct contact with others, there was a perceived gap between the aspect of public life that plays out online and the daily use of space. One interviewee who had not met anyone in person that they had seen communicating on Twitter about Brockley felt that it was *"funny considering it's such a small community. You probably see people all the time because you go to all the same places. But you don't necessarily know who you meet" [12]*. It is hard to marry the performance of identity on a social media profile with the physical embodiment of that identity in person, and recognize the link between the two. Identity is arguably suppressed in public spaces as part of their normative protocol – we do not carry information physically on our bodies in explicit, discursive forms that could enable those we have come into contact with online to identify us. Perhaps this is not a failure of the interface between mediated sociality and urban space, but a necessary protection of the workings of life in public. Sennett characterizes the contemporary tendency to value inter-subjective knowledge between known individuals – 'social ties' in the form of family members or close friends – as an undervaluation of the "community of strangers" generated by public life in the city (Sennett, 2002, p. 4). Admittedly, for residents actively seeking social support networks, this can be a disadvantage: *"one of the things*

the blogs don't do - they make you aware of what's going on in the community but maybe perhaps don't do anything towards helping you meet people in your community" [14]. For others though this separation between online and embodied self was a conscious choice. *"It's almost too many people, because you bump into people on the train in the morning when you just want to stare into space… The thing is in London, you don't tend to meet people anyway so I don't think that's a bad thing" [1].* Despite his willingness to be part of an online public of neighbours (he particularly was an avid reader and Twitter follower of Brockley Central), this interviewee describes something like the "metropolitan mindset" observed by Simmel as a social characteristic of large settlements. Presaging Sennett's re-evaluation of subjective non-disclosure, Simmel described this as an "intellectual distance" (Simmel, 1972, p. 325) that foregrounds the development of the rational *public* individual over the "emotional" familial ties of rural *community* life.

This dichotomy in social values between public and community is encoded in the protocols of the two social networks Facebook and Twitter. Twitter is more like a street in a large city: it allows profiles to be minimally populated with information, so that very often they do not allow for personal identification. The analogy only goes so far of course, as Twitter is a platform predicated purely on communication, and without communicating users are essentially non-present, whereas streets are fundamentally movement spaces in which communication – discursive or non-discursive, through sound or light – is a by-product of the interface between physically co-present strangers. There are further similarities though, as we have seen. People on Twitter can be in exposed positions that set them up for approach from strangers, as Goffman observed as the case in public. With the growing culture of surveillance in public space there is a move against anonymity through the shielding of distinguishing features with hoodies or religious face coverings,[25] with those that are unidentifiable being feared in public just as they are on Twitter, in the form of anonymous "trolls". Facebook, on the other hand, encourages a culture of extreme mutual disclosure and largely facilitates communication between those with pre-mediated social ties, such as family members and friends. In fact, the level of disclosure Facebook has the tendency to afford in its users has become a controversy in itself, with aspects of private lives shared that are deleterious to relationships and job prospects (Agger, 2015). In this sense it seems to many of its users to be much more closely analogous to the domestic interior than to a public, in which such 'private' things as naked bodies and emotional lives are safely revealed, despite the potential harm in the publishing – "making public" – of these

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[25] Epitomised by the French state's banning of face coverings in public, based in the principle of secularism but seen too to be an issues of security (see Willsher, 2014).

personal details. This counter-distinction of the two social networks is intended as background to the following example from the interviews, in which an individual employs a similar 'metropolitan' approach to his presence within the mediated public realm. Asked if and how he sought contact with other locals through social media, he responded: *"There's people scattered, but it's finding how you get in touch with those scattered people. So it's not just look at the profile and ok. Many people here* [indicating people sitting around us in café] *may be on Twitter. I keep my Facebook account very separate. If I'm going to send an invite I've got to know that person for some time. There's an emotional protocol. Even for me Instagram to a certain extent. But for Twitter I can connect with people and they can connect with me. And I can see that they work in a specific field"* [23]

This interviewee was actually unusual in the degree to which he did actively make lateral connections with other Twitter users locally, which relates to his identity as a communications professional, but the characterization of the public nature of Twitter held true throughout. All interviewees were asked whether they used Facebook 'hyperlocally', and whilst some followed Brockley Central's page and those of local businesses it was not seen as a setting within which strangers came into contact, making it by most definitions referred to in this work a non-public platform. Through Twitter, people enter into the mediated public as 'citizens of Brockley', with relatively impersonal self-presentations, rather than with their own intimate identities as constructed through Facebook profiles. Two interviewees noted that even though they could match the identity of Twitter profiles with people, the two stayed separate. *"It's funny because there are a lot of business owners like [X, Y, and Z]. You'll each know that you're tweeting but it's not usually raised in conversation because you'll have the conversation online"* [19]. *"I dig in and out and I've got to know who's who, without ever meeting them, which is the fascinating thing about it"* [23]. Twitter cannot fully be read as a remediation of the public street or square. It exists for discursive, textual communication whilst an encounter in architectural space with a business owner will usually be instrumental and predicated on a transaction, with any social interaction as a side-effect. For these interviewees, it seems, embodied encounters and mediated association each plays its role and the two do not need to have a direct effect on one another. A further interviewee referred implicitly to a reluctance associated with what John Law describes as "congregation" – when mediated publics make the conscious choice to gather in space to put their collective physical and psychological abilities to work towards the issue around which they collectivized. *"There is still a gap between reading it and taking that step [to meet up]. It's a bit like dating: who's gonna be there? are they weird?"* [23]. *"I help out with the [X] group. I don't go to their meetings really. I*

don't know why. I spent my life going to meetings and I just think meetings are out of date" [25]. Congregation involves what Anthony Giddens has called "facework commitments", which are "sustained by or expressed in social connections established in circumstances of co-presence" (Giddens, 1990, p. 80) and in which "indicators of the integrity of others...are sought" (ibid., p. 82). These commitments impinge significantly upon the civil inattention that, according to Giddens, is the "background noise" of trust in strangers that enables individuals to cope with the volume of others that co-inhabit the city. Writing before the advent of widespread 'Web 2.0' peer-to-peer online communication, he describes "the 'lifting out' of social relations from local contexts of interaction and their restructuring across indefinite spans of time and space" (ibid., p. 21) via national and global legal and economic frameworks that mediate interpersonal trust via a buffer of institutional regulation. Local, spatially-embedded facework becomes secondary in importance to participation in these institutional frameworks that guarantee membership of a society, and confer trustworthiness on the individual by proxy. Trust, in Giddens' understanding, becomes disembedded so that the immediate becomes unfamiliar, face-to-face sociality becomes de-structured and de-institutionalised, and in public life the reverse is the case. Arguing that familiarity can rest upon "stable forms of disembedded relations" (ibid., p. 115) Giddens offers the example of the chain supermarket, which can be more reassuring than a corner shop even though it is further disembedded institutionally from the local. Whilst this mechanism is still at play, social media have offered an interesting modulation, in the way at least in which they are described in the data here. In Giddens' reading, strangers are unidentifiable and uncommunicative, but can be imagined as familiar and trustworthy due to common participation in disembedded, overarching institutions such as national media, the economy, and democracy. Twitter is a global framework for communication, which as we have seen can be parochialized so that networked publics of familiarity emerge around topics that could be transpatial, or as in this case geographically specific. Participation in this localized, parochial social media setting offers a kind of mediated trust between strangers, but with a much greater possibility for mutual identification and communication than offered by the inattentiveness of common use of neighbourhood space, which Giddens sees as stripped of its value for social relations. Nonetheless, this mediated trust, structured in part by the communication framework established by Twitter as a corporate institution, is still more familiar and more comfortable for these interviewees than the possibility of establishing stable, interpersonal trust relationships through facework in institutionalized personal relations such as local meetings. As described by de Waal, "a place in itself is not decisive but rather the ethos governing communication, the protocol that is observed there, with participants temporarily distancing themselves from their private identities"

(de Waal, 2014, p. 99). Whilst the performance of a "metropolitan mind-set" and the separation of self-presentation online and in person were common themes, there were exceptions demonstrating modes of participation in Brockley's mediated public realm that helped to facilitate or reinforce unmediated social encounters. These could be characterized in three ways. The first is an indirect parochialization of spatial settings through what could be termed *staged serendipity*, in which access to the same channels of communication and therefore the same information about events and places stimulates use of those places and thereby sets up a greater possibility for spatial co-presence between co-members of virtual publics. This has been described as relatively common in relation to local businesses, which act as platforms for habitual encounter. One example, though, illustrates how residents can leverage a mix of media to create and stimulate use of temporary platforms for encounter within their own parochial domains.

Figure 6.10: Tweet from interviewee (profile name obscured for privacy)

"A few local people tend to crop up when there's been a thing. So there was a Brockley front yard sale and everyone in the area could sign up to this thing to say we're having our front yard and there was a map of all the people so you could go round Brockley and Crofton Park and there were these people selling stuff… We actually Tweeted that we have this stuff in our yard and people came to our house to buy it. So we made a sale on Twitter which was nice. And that was good actually, because other people who were doing the yard sale were going round and saying we've got our yard sale here, so we went to their house and bought something from them and their neighbours. So that was quite a nice little community thing. I don't know who organized it… There weren't that many people using Twitter for it to be honest. We had to email someone. That's

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how we found out. Someone else on our road was doing it and they put a little leaflet through everyone else's door saying 'we're doing our garage sale on this day, do you want to do it too?' Because then loads more people will come" [2]

Although the event was advertised on Brockley Central (Barron, 2013f) it materialized in the lifeworld of this interviewee by circulating through a network of electronic and print media. By searching Twitter it is possible to find one of the interviewees tweets from this day,[26] which mentions @BrockleyCentral and @Broc_Soc [Brockley Society] using the hashtag #BrockleyGardenSale (figure 6.10). This is not a direct communication with neighbours but one that takes place via nodes that are central to the hyperlocal Twitter network, but evidently led to direct encounters in the street. It is notable though that these encounters though do not take place just *anywhere* in the public realm, but at the interface between the domestic and public. Standing in front of their homes but in public, individuals can be identified clearly as residents, performing on a physical stage rather than via the Twitter profile, unlike in the generic movement spaces of Brockley Road in which locals and passers-through intermingle. Just as the Twitter handles of Brockley Central and the Brockley Society act as points of *mediated triangulation* via which individuals can encounter one another on Twitter, the social interface of the domestic façade and the display of items for sale act as artefacts of *physical triangulation* that open people to mutual discursive communication around an impersonal, public topic. Another tweet shown in figure 6.11, from a different person on the same day and in relation to the same event, demonstrates this even more clearly. Here, Brockley Central has retweeted an image of this user's home. The front yard is set up as a temporary social interface and a stage-set for conversation by being decorated physically and also by being advertisement to the hyperlocal Twitter network. Through a mechanism like this the virtual community becomes realised in both the senses defined in section 2.5: members of a virtual public around Brockley Central become visible to one another, as do residents of the same street who otherwise may not translate their regular co-presence into social contact.

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[26] Due to limitations placed on Twitter searches the site now filters tweets for relevance and does not show all historic tweets, meaning it is not necessarily possible to find a precise tweet (Twitter Inc, n.d.)

Figure 6.11: Tweet from another participant in the Garden Sale (profile name obscured for privacy)

Secondly, in terms of observable impact of the virtual public realm on direct unmediated sociality, there can be an intensification of familiarity through *pre-existing mediated encounter. "I think maybe on 3 occasions I would meet someone in here [café where the interview took place]. Just by chance… Because I live in St Donatt's Road and I used to go under St Donut [as a blog comment profile name]. And you'd just meet. I maybe met two or three people who I recognize"* [14]. *"I read [Twitter] but I don't really use it… But I guess it just fleshes out the distant figure in the playground I know of but I then feel there is an interaction with"* [7]. Both these excerpts suggest that even without direct contact online, certain profiles can start to feel familiar and translate

into a sense of connection or an actual unmediated association. The opposite of remediation, this 'unmediation' of the virtual public into spatial settings is another example of a perceived interaction with the lifeworld that is not visible from the data records of social networking sites. The third of these modes in which the hyperlocal communication networks can translate into unmediated contact is through purposeful congregation around homophily or authority. Three of the interviewees who also published their own blogs partially predicated on local topics discussed structured, focused social encounters organized as a result of their online publishing. Two recalled regular bloggers meet-ups: *"When I started blogging I chose the name for the blog as it was the name of the area where I was living. So this was back in 2007… At that time there wasn't any social media… Twitter, Facebook. So we managed to meet up with other bloggers in the area. There was a website, I don't know if it still exists, where you could find other bloggers in the area. So we met, it was Lewisham bloggers. We met regularly in a pub… The funny thing is when there were only blogs it was strangely easier to meet people than Facebook or Twitter"* [20]

So within Twitter, even if people indicate themselves to be residents of Brockley, it is too much of a "world of strangers" to initiate contact easily without the triangulation of third spaces and parties such as Brockley Central and local businesses. However, the more specific identity of "Lewisham bloggers" seems to be a strong form of homophily around which sustained social commitment can be established, that even outlasts the existence of the mediated communication platform itself. Another interviewee described the same meet-ups as follows: *"In the start of 2007, 2008 there was the rise of local blogs. So there was a bit of face to face networking, a few councillors who were blogging. Particularly a councillor called [X], who was a Labour councillor in Blackheath and he was just very good at networking. So I think we had over about 3 or 4 years – 2006, 7 8 – every kind of four months or so physical meet ups. I guess about 2010 it was council elections and before that [X] left local politics and it petered out. So I guess from then Brockley Central went from being one of a few small local blogs to being a big online community"* [5]. There is an explicit recognition of the potential for a hyperlocal blog to literally expand in size: imagined in this extract as a growth in numbers of audience and participants but which later manifested in Brockley Central as a geographical expansion, as was seen in chapter 3. The same interviewee went on to report *"I have almost no overlap between my online and offline worlds"* highlighting the disjuncture between his *"rich face-to-face network"* through his child's school and his *"online local network"*: *"there's almost no-one who's moved from being a face to face acquaintance to being an online acquaintance, but there's been some movement the other way"* [5]. As in the example of bloggers' meet-ups, there is some motivation to

congregate with a virtual public built around the strong homophily of being a local blogger, but for this interviewee no tendency to translate the regular encounter at the school gates into an online association. Lofland relates settlement size directly to the different social dynamics of community and public, identifying a figure of 8000-10,000 people as the population threshold around which a socio-spatial community transforms into a world of strangers (Lofland, 1985, p. 12). The same seems to be true of mediated networks which begin to become divorced from the capacity for generating sustained, purposive unmediated encounter as they grow socially and spatially. In the 2011 census data, just Brockley Ward had a population of over 18,000, while the population of Brockley Central's imagined region in 2015 could be calculated at somewhere over 117,000.[27] The public sphere is populated by strangers, and occupies a separate "world" to the spatially-framed sociality of parents in school playground.

The 'world of strangers' is illustrated by the way Brockley Central's publisher perceives in own role as an online public figure. In an informal phone conversation early in the research (he did not agree to be formally interviewed) Brockley Central's publisher described the way his role as an opinion leader through the blog applied pressure to his daily use of neighbourhood space. By placing himself in a strong communicative position, he felt at risk of losing the anonymity that allows unhindered movement around the area and use of its facilities. For example, if his identity was known to his local shopkeeper, he argued, he would be unable to use the shop without being engaged in conversation, and potentially in argument around a controversy. The maintenance of perceptual distance between his online and offline self-presentation was necessary, in his mind, to preserve his ability to speak freely online in the relatively detached, rational manner characteristic of the Habermassian public sphere. Like any good journalist, he takes full responsibility for his words: his name is known, and he regularly makes disclosure in blog posts of personal and professional affiliations that may be seen as impactful on his opinions. However, neither the blog nor his Twitter profile show his face, allowing him to remain anonymous in a physical communication setting to those who do not know him personally, and particularly in public space. Due to the size of Brockley Central – both in terms of the number of people in its communication networks and the geographical area it covers informationally – it is neither possible nor necessary for an individual to collect all relevant news in person. Information comes to Brockley Central via media in various means: through a number of informants, often credited at the end of blog posts using Twitter or comment profile

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[27] Census data is given in spatial units called Lower Super Output Areas (LSOAs), that do not correspond to electoral districts such as wards, and certainly not to hyperlocal blogs. These figures were calculated by adding together the populations for LSOAs falling within these larger spatial units respectively.

names, who send leads via email; through residents and organisations who send press releases and information for advertising purposes; and through individual followers who tweet pictures using either the handle @BrockleyCentral or the hashtag #Brockley, which he regularly searches for information. Information, then, comes to Brockley Central the hyperlocal platform rather than to its publisher the individual, and is re-distributed purely through media channels (see figure 6.12 for example). It operates very much along the lines of the public realm, in which individual subjectivities are subservient to the relatively anonymous circulation of stories, and social collectivities are imagined via these stories rather than played out through direct interpersonal communication. The mediated world of strangers, then, that constitutes Brockley Central's public is too large to be realized constantly in embodied encounters in space and retains both the physical and psychological distance that characterises the public sphere at the national scale.

Figure 6.12: Network of storytellers: a regular informant tweets a story to its publisher that has been collected through word of mouth, who publishes it on the blog, to which another blog responds with clarification. Brockley Central draws information to it rather than having to seek it out physically

6.4.4. Blogging: an active orientation to the lifeworld

The experience of Brockley Central's publisher suggests that there are particular responsibilities and orientations to the spatial public realm, then, in the role of the "uploader" (to paraphrase Nina Pearlman's terminology introduced earlier in this chapter) that are distinct from experiences of partaking in the public sphere through "downloading". This also reinforces the argument for a nuanced qualitative approach to understanding how media interrelate with place: they do not evenly 'impact' it, but create different protocols for different individuals depending upon their relationship to the public sphere, as publishers or readers. Several interviewees also spoke from the point of view of 'uploading', *doing* storytelling, being publishers, and collecting local information. This takes discussion to local media other Brockley Central, which is valuable for several reasons: it highlights the phenomenological differences in the orientation of 'uploaders' and 'downloaders' to the hyperlocal public sphere; it reveals the way other storytellers think of themselves in relation to Brockley Central specifically, as the dominant setting for the production of hyperlocal publics focused in Brockley; and following this it shows the importance of seeing Brockley Central, and likely any hyperlocal blog, as part of an ecology of local communication. The most noticeable difference in the position of the uploader relates to the relationship of the mediated public realm to embodied public encounter. Unlike Brockley Central's publisher, who needed to retain distance from in-person encounter, the publishers of blogs with smaller audiences and spatial reach found that uploading information to the public sphere stimulated their involvement in face-to-face encounters. One had set up a specific Twitter profile for Honor Oak Park (towards the southern end of Brockley Central's region of practice, and connected to its public sphere but more weakly than Crofton Park) in response to the threat of a new chain restaurant opening within the parade of independent businesses around Honor Oak Park station, with the intention of organising a campaign against it. She described a strategy of approaching businesses in person and asking them to join Twitter, if they had not already, and to follow the account to keep up to date with this campaign. As a result, she became known in person to shopkeepers: *"all the shops know who we are. And sometimes you walk past and someone says 'Oh everyone still parks their car in the street. We need to sort out the parking issues'. There are definitely some contentious issues" [10]*. Being in control of an online news source focused on a locality as specific as one parade of shops ontologically transforms the social implications of physical presence in that space: from being an anonymous body within a public of loose and indirect connections to one another to being a recognisable subject within a community of sustained social relationships focused around the stability of local businesses. Unlike the non-committal involvement of participating in issue publics by 'just being informed', or Warner's

"merest attention", the role of storyteller involves a contractual obligation to be reliable spokesperson and to take on issues on others' behalves. This contract involves sacrificing a degree of public anonymity, and the ease of use of space that comes with it, becoming tied to shopkeepers in the role of spokesperson, rather than just associated with them. This did not translate with general individual followers of the account in the same way: she referred to the issue of being "faceless" behind the Twitter account but recognised its value in stimulating the type of imagined social coherence that has been described above: *"people who do follow feel they're part of a bigger group who want to make a difference to the community"* [10].

The experience of becoming known in person as a storyteller was reinforced by another interviewee that publishes another smaller (than Brockley Central) blog and Twitter, for Crofton Park. *"There's probably 20 or 30 businesses. I sort of go into Ladywell and I touch on Brockley... But either I go in personally and ask them what would you like, what's going on, what's going to happen in the next month… Some of them I DM them because we all follow each other. I've got quite a lot of their emails… There's a definite 40-50 businesses that I totally engage with on Twitter because of the blog and I've pretty well met them all. Brockley Brewery, I went and did an interview and I engage with them. I've seen them at various pop-up things… After this I'm going to meet a friend at Arlo and Moe for lunch so I will talk to [the owners] and chat. So I'm constantly gleaning information by my general usage of these places"* [4]. This passage reveals several interesting aspects of this individual's storytelling practices. Firstly, similarly to the Honor Oak Park tweeter, is the intensification of the sociality of public space and third place use for storytellers. Meeting a friend for lunch or going to a local event is always mixed with "gleaning information" or bumping into business owners. Shared awareness of issues was occasionally described by downloaders as a basis for interaction with strangers and acquaintances, as shown in section 6.4.3. However, these casual encounters had an external focus and do not require inter-subjectivity or the sharing of contact information, and are nothing like the socially contractual obligation of the storyteller to be known by name and fully exposed to communication in person, via email, and via direct messages (DM) on Twitter. This last point also highlights the cross-mediation that storytelling relies on. Information is not necessarily already out there to be passed on but must be collected through a significant amount of physical energy, supported by the time investment of using one-to-one direct communication media (Twitter DM and email) to follow up on relationships built through physical face time. It highlights another informational role of business, as distributors of information by word of mouth, as well as their own online storytelling and as conduits for communication between others. This word-of-mouth passing on of stories was not

unidirectional either. By positioning herself as a central node in a network of businesses in Crofton Park, that we see now is not just a Twitter network but a multi-modal one including spatial settings and other media, she becomes a valuable source of information too. Describing a supermarket owned by a local family, this interviewee recalled that "*now I've got so involved in local community things they're always "oh [X], what's happening, tell us" [4]*. Business operates in an ecosystem, both of other businesses and of built environment conditions, and in a hyperlocal context the condition of both can be impactful for the viability of individual enterprises. They clearly have a vested interest in the quality of the physical public realm, but benefit from the value of a communicative realm too in which issues that could be impactful are constantly published as points of shared concern. This particular supermarket was mentioned by another interviewee: "*the guy who runs [X] is kind of a community champion, knows everyone and is hugely friendly… Well opposite [X] there they tried to build a Tesco's… The building was going to be four stories, Tesco and then three stories above, when everything around is two stories. So it would have stuck out horrendously. And we've got loyalty to [X] who campaigns against it. So he gets everyone to write to say we didn't like it" [2]*. This 'everyone', as we have seen, is a public that can be reached via blogs, formed around the merest interest in news about local businesses but that can occasionally be mobilized to act on issues that face them. For publics to remain available for this mobilization requires the upkeep of communication pathways through ongoing non-instrumental storytelling which itself is supported by the willingness of businesses to contribute to an active mediated public realm. Finally, returning to the Crofton Park blogger's experience, her account reveals a different orientation to space than Brockley Central, that reveals a subtle but fundamental relationship between scale and communication practices. Her blog makes Crofton Park its specific focus (its hyperlocal 'brand' does not play on the place name like Brockley Central or Kentishtowner do but uses it wholesale) and only "sort of" goes into Ladywell and "touches on" Brockley. Taking an intensive approach to gathering stories that requires such physical investment presumably limits the geographic scope of the public realm she can produce, but reinforces her role as a persona, a subject, and a body within that more constrained geographical space. Brockley Central's publisher's approach to his much larger territory, described above, was much more heavily reliant on media. He does not need to invest physical energy in traversing space to collect stories and instead is sent stories by readers, some of which have become regular informants.

6.4.5. Translating territory into place

Brockley Central, it has been argued, is not generally a setting for effective deliberation over local issues. However, its creation of a region of practice, shown in chapter 3, built

around the locations of issues framed did seem to have the potential to drive use of, concern for, and the more intangible *sense* of connection to those locations. 'Just being informed' is not *always* an end in itself but can lead to intensified use of locations mentioned in the blog. *"You find out things that are going on and you're able to use your local area. And I think the more we use things, the better it'll get. So it definitely enhances living in the area having access to that information" [11].* For this interviewee, acting on the information available through the blog leads to a richer usage of local amenities, which they perceive in turn as a way of participating in the improvement of these amenities, responding to a concern for quality of life in a specific region. Several interviewees used the locations of businesses as spatial markers around which to draw the boundaries of their own personal territories, imagining their locality as the region within which they had concern for businesses: *"I wouldn't say that that's Brockley [the area drawn out], but that's probably the area where I'm interested in the businesses, what's happening and stuff… It's nice to see Brockley Market getting some recognition" [6].* One interviewee living in Telegraph Hill, technically SE14 and therefore New Cross, described how her connection to Brockley was greater than to New Cross because London-wide media such as the Evening Standard were describing Brockley as a *"hot-spot" [11]* due to its proliferation of new food-based businesses. So even through the way a neighbourhood is framed in a non-hyperlocal setting, local residents can construct a sense of a coherent region of local space that is relevant to them via the amenities it offers. This process worked in reverse for others: *"Brockley Central has maybe created the idea of it being an area. Maybe that's just an incomers viewpoint. But before then Brockley must have felt more like a dormitory" [9].* By framing issues in a public setting that can be accessed by those not living in the area, Brockley Central somehow works to perform Brockley as 'place' rather than 'space' to a non-local audience. Yi-Fu Tuan's definition of place as a "field of care" (Tuan, 1977, p. 162) offers valuable way to conceptualise this process of media transforming space into place. For each person, field of care it is the spatial region within which issues can be located that induce the kind of concern or interest described here, suggesting place is not a stable entity but a projection onto space of a mental map from an individual perspective, formed partially of emotional responses to specific issues.
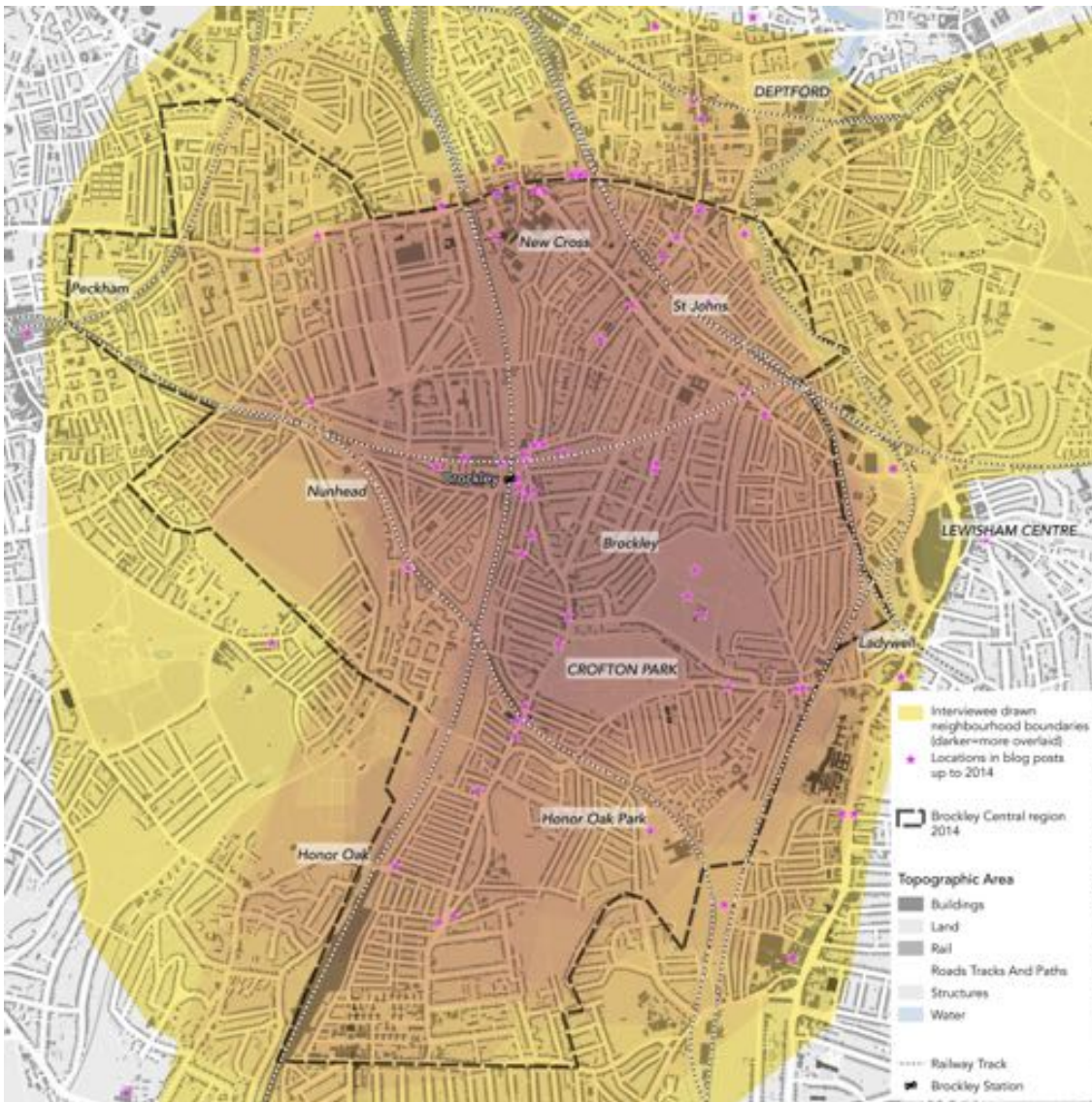
Figure 6.13: regions drawn by 30 interviewees to show their locality, overlaid to represent density of sense of place, with locations referred to in 2013-2014 sample of blog posts and 2014 self-defined region

Carmona et al. argue that placeness is formed not only from everyday encounter with the built environment but from the *consequences* of that encounter, that build an orientation of intentionality rather than passiveness and pure chance towards an environment or lifeworld (Carmona et al., 2003, p. 96). If this is true, and if the same aspects of the built environment can be encountered as stories Brockley Central as well in passing by in person, it would make sense that reading the blog intensifies the placeness of that environment. As seen before, readers do not need to participate personally in social interaction to derive from blog posts a sense that there is a consequence to the places they encounter in their use of the area, in the form of a public reaction. Immediate experience of the built environment is 'doubled' (to paraphrase de Waal) with a heightened awareness of its consequentiality, in the form of shared concern performed on the blog. Following both Carmona and Tuan's

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hypotheses, it seems reasonable to suggest that perceptions of the layout and extent of Brockley as a place could be influenced by its creation of a territory. Figure 6.12 shows the localities drawn by interviewees as transparent regions that are overlaid to show an increased intensity of colour the more these areas overlap. The map also shows the locations in Brockley Central blog posts collected in the 2013-2014 sample, and its 2014 self-defined region, as most of the interviews were collected before it changed this description and assuming that this expansion would not immediately manifest in a change individual perspective. This visualisation illustrates how ideas such as field of care can be represented spatially, as a tool for thinking about the interweaving of media, urban form, and individual orientation towards the built environment, rather than as proof of causal relationships between these elements. Unsurprisingly here, there is a pattern that will be familiar from chapter 4: like locations referred to by Brockley Central, there is a consensus on locality concentrated around Brockley station and to its east, following accessible spatial routes north-east towards New Cross, St John's and Deptford. It also extends south along the main road, tapering off as the number of locations in stories decreases from nearby Crofton Park to slightly more distant Honor Oak Park. One interviewee had an extremely broad sense of what was local, stretching from Peckham to Blackheath, and indeed there was one location in each of these areas mentioned on Brockley Central. Otherwise most of what was seen as local was concentrated within the Brockley Central's self-defined region, which to recall has been represented as a combination of wards and the SE4 postcode district that largely follow spatial boundaries: the train lines to the east through Ladywell, the river separating Deptford from Greenwich, and the main road through New Cross to the north. In the west, though, concentrated sense of place does not reach the boundaries of the region, and we have seen that despite imagining this area as part of its coverage Brockley Central does not in practice operate there. Largely, then, spatial conditions, the virtual place markers of administrative boundaries, imagined hyperlocal region, and "field of care" reinforce one another, but a lack of storytelling in one part of the region is coupled with less of a sense of connection there on behalf of the interviewees. One indeed described the sense of disconnection with the west of Brockley: *"I don't remember the last time I went on the other side of the tracks. Not for any reason, there's just no reason to go down there"* [15

The conceptualization of field of care offers a convincing way, then, to understand how stories on the blog are tied up with the perception of locality. Furthermore, some interviewees who began to read the blog after moving to the area described how their field of care re-oriented towards the concentration of the blog's region of practice once they started to read it. One interviewee was amongst the few that lived on the west

side of the train line, and described feeling disconnected from the centre of Brockley. As seen in spatial analysis, this area is topologically distant from the high street, meaning her routes through the area rarely brought her into contact with the high street and encounters with its issues. Encountering issues online through Brockley Central enabled her field of care and her use of the neighbourhood to bridge this spatial barrier: *"Even though I live in the area, most of my life is outside the area. So I still want to have some kind of understanding of my local area… It's [reading Brockley Central] definitely changed, not so much how I feel about the area but strangely makes me feel a little bit more connected to the area. I feel I have some idea about events in the area. Before that I was a lot more distant. I probably wouldn't have been able to say very much about what had gone on, or tell you about different parts of Brockley… I live on the west side. So if anything had happened on the high street, I wouldn't have known about it necessarily. "The bit I didn't used to consider to be Brockley [before reading the blog], but I would consider to be Brockley now as opposed to Honor Oak Park, would probably be the part up the top of Brockley Road. But [since reading] because of where it is in relation to me that is probably where I would socialize more if I was socializing in Brockley. Probably by the station and up that end of Brockley Road. And I would definitely see that as Brockley" [28]*

Brockley Central enabled the development of a field of care covering the centre of Brockley, overcoming a lack of habitual use of space she attributed implicitly to the 'distancing' effect of the topology of the street network here. Brockley Central also enabled this interviewee to overcome temporal constraints in the performance of local spatial identity. Despite spending the majority of her time working and socializing elsewhere she can "feel a little bit more connected" without extra temporal investment in immediate physical presence in local space. The relaxation of spatio-temporal constraints, through blurring boundaries in time and space between the activities of work, home and social life, is a well-documented aspect of mobile communications. Schwanen and Kwan describe "requirements for people to associate themselves with others and material artefacts at specific places and times for a certain duration in order to realize production, consumption and transactions" as *coupling constraints* (Schwanen et al., 2008, p. 1363) which are disentangled by mobile communication device use. So in these terms a new kind of blurring or decoupling could be proposed, in which acting locally does not entail being locally present.
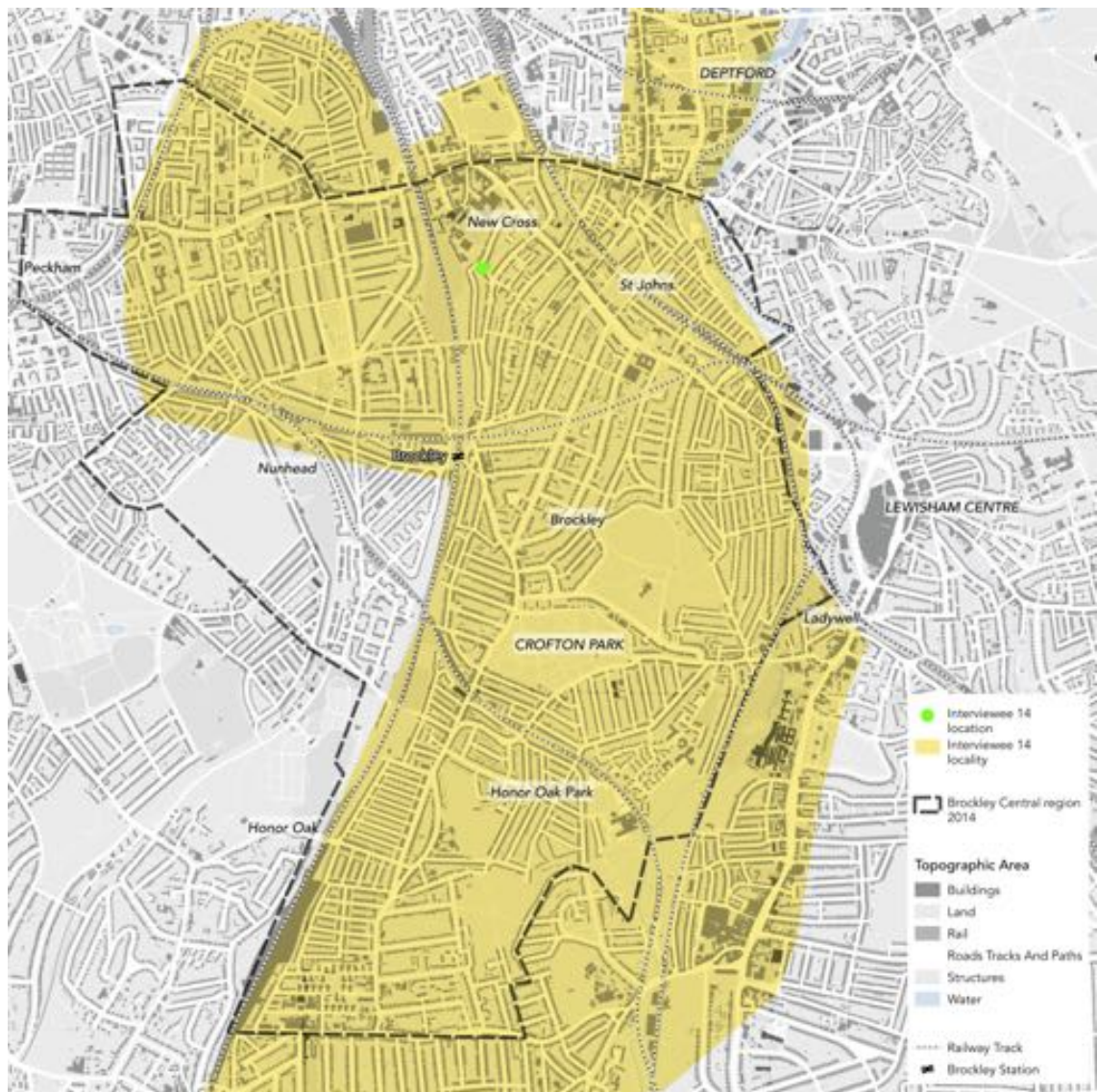
Figure 6.14: Region of locality and residential location of interviewee 14, showing how it is not an even radius from residential location but stretched to the south following Brockley Central's coverage

For another interviewee, living towards the north of Brockley Central's territory, his entire cultural orientation was shifted from north towards New Cross to south towards Brockley because of the new spatial awareness the blog created: His description is illustrated by the region he outlined as his locality, which extends very unevenly from his home, far south into Brockley Central's region and barely to the north of where he lives (figure 6.14): *"When I first moved here it was all about the tube so the centre of my life was here [New Cross], or my notion of what I lived on the periphery of. And then through reading Brockley Central and coming here [café opposite Brockley station] for coffee rather than going to Goldsmiths or [café on New Cross Road], what I've noticed is my whole universe changed direction... I lived here [New Cross] and 'up' used to be that way [north] but then I started reading Brockley Central and finding out about all the stuff that was down here, which was probably more to my taste suddenly north was*

that way [south]. In Viking maps, home was always at the top, so where you're most familiar with seems like north. So now it's all down here [Hilly Fields], round the side of there, and then the hospital my niece was born in [Lewisham University Hospital]. I've campaigned for the hospital there" [14].

Even if Brockley Central's production of a region does not *re-shape* field of care, it can still play out in a perception of the region that holds together as a single place: *"Well my son's started swimming lessons here so that's extended it [interviewee's sense of locality]. And my other son is at nursery here. I work in Hilly Fields. There's Ladywell. And I walk to the hospital sometimes [south of Lewisham Town Centre, in Ladywell]. But part of that is through Brockley Central giving a greater sense of those interconnecting spaces. I've got a cousin in St John's so that's an area I know well. But to be completely honest in terms of the actual community I belong to, we would have felt that if we'd gone beyond Drakefell.... We have a strong identity with the Telegraph Hill network of streets, but we participate beyond that... It's because I'm aware of things closing or thriving in those areas, that I wouldn't necessarily visit more than three times a year, but I feel a kind of ongoing connection with" [7].* In this experience, the spatial identity given by residential location – "the Telegraph Hill network of streets" – is nested within a wider identity as a resident of Brockley that is performed through reading stories of businesses "closing or thriving" on Brockley Central. This wider spatial identity does not rely on actual physical presence but is constructed through a form of "participation beyond" the spatially immediate through awareness of change. One of Brockley's ward councillors was interviewed, and described how Brockley Central contributes to the construction of a field of care beyond "arbitrary" political boundaries: *"People think they live in Brockley. But Brockley ward isn't what people define as Brockley. It stretches over Ladywell and Crofton Park. So my friend lives in Crofton Park ward but she would think she lives in Brockley. People who live at the top of Hilly Fields are actually in Ladywell, but associate with Brockley. His [Brockley Central's publisher] span will be much wider than my ward… Even so if someone posted a comment, even if I knew where they lived, which you don't, it wouldn't change my view. Because we're all part of the community. So if someone in Ladywell was commenting on Coulgate Street it wouldn't matter, because that's probably the station they use. So it helps to break down those ward divides which are quite arbitrary in a way" [22].* In her role as a councillor this interviewee has responsibility for representing and advocating for the needs of residents of Brockley Ward. Given the unusual level of direct interpersonal communication this entails, it is not surprising that her imaginary of Brockley's associational life is in the form of 'community'. However, a wider population than that she is responsible for are participating in awareness of issues located in

Brockley (the "Coulgate Street" she mentions refers to plans to pedestrianize a section of the street outside Brockley station) but framed by Brockley Central for its further-flung audience. This wider population, in her mind, is a legitimate public for this issue, played out through Brockley Central, and any views expressed in this setting become part of the consideration she gives to the issue in a professional capacity.

In several ways, then, reading stories about location-specific issues on Brockley Central can change an individual's mental map of their own neighbourhood. Particularly, the development of concern for and interest in locations that are encountered through stories, in mediation, can stretch the perception of what is local beyond what might be developed through general movement patterns around the area constrained by proximity and spatial topology. These issues can be changes to the public realm – as in the case of the local councillor – but are often local businesses, which play a multi-modal role in marking out locality as issues that generate stories, as spatial landmarks, and as distributors of these stories via their strong network positions. There was not the possibility within this study to test the effect of Brockley Central's expansion over time, as it incorporated more territory as it changed its imagined region in 2015 while slowly expanded its region of practice through framing further-flung issues. These effects emerged as unexpected results of a process of interviewing that took place throughout the research, and could not therefore be made the hypothesis for a longitudinal study. However, if it holds true that Brockley Central's coverage of located issues is reflected in individual perceptions of sense of place, it could easily be imagined that there would be an attendant expansion in what is collectively agreed upon as the outline of Brockley. If so, media have a role in slowly shifting the cultural map of place boundaries (as different to the administrative map of postcode districts and electoral wards that have little realisation in place identity). Places in London have overlapping and contested boundaries anyway, as the non-gridded urban form makes it difficult to assign clear edges to any given location.[28] Furthermore, place names in London have regularly appeared, disappeared, and shifted spatially over time. Often this process is driven by concrete change in urban morphology, but it can also be purely virtual, as neighbourhoods are re-branded by development or common consensus, or lower-order places become subsumed in the collective mind-set by more dominant neighbours (Bolton, 2014). The place-forming role of media is not new though, as argued in chapter 1 in relation to the way communication networks formed territory in the Roman Empire and in Medieval Europe. At a more parochial scale, local daily newspapers, which are described by

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[28] See http://thisisntfuckingdalston.co.uk/ for an illustration of how the perceived spatial boundaries of named places overlap along a linear street through several neighbourhoods

Franklin and Murphy as the predominant source of news for the urban working classes from the mid 19th century to the late 20th century, "established the social and political reality of abstractions associated with the municipality…and gave substance to place names such as Bedford, Nottingham or Reading" (Franklin and Murphy, 1998, p. 8). Place names are media themselves. They are denominations of space stored in the formalised, systemic media of official maps and records, and re-affirmed through the performance of storytelling both in day-to-day media and in person. Hyperlocal brands are second order mediations, then, but help perform the virtual reality of a place name as a reality lived by its residents. Without this second order mediation, place names could perhaps fall out of common use, changing the boundaries of lived space itself. It cannot yet be known whether Brockley Central's expansion, and its performance of more and more space *as* Brockley, will literally overcome and make defunct surrounding place names such as Crofton Park, but it is an interesting thought experiment in testing the potential extent of this effect. Its expansion though also marks an important difference from previous forms of local news. Print papers have a specific geographical circulation defined by the locations of shops stocking them or deliver rounds. Audiences need to have physical access to the spaces local papers circulate within in order to access the relatively delineated and stable public realms they create. Hyperlocal media have hypothetically unlimited audiences, and as shown in chapter 4 Brockley Central's network is concentrated in Brockley but has tendrils extending to surprisingly far-flung areas. Internet mediation, and its greater traversing (but not transcending) of space creates the possibility for much more interrelated and intermixed spatial publics across localities.

6.4.6. *Hyperlocal media in an ecology of communication*

Sandra Ball-Rokeach et al.'s term "communication ecology" describes the network of communication settings, both mediated and in space, that circulate stories in a neighbourhood (Ball-Rokeach et al., 2013). This section will show that the notion of neighbourhood communication ecology is a useful way to describe the way interviewees use of hyperlocal media was stimulated by encounters with information in other settings, both unmediated and in non-internet, or offline, media. It starts with individual anecdotes and builds to an expansion on Ball-Rokeach's theoretical proposition. So far the discussion has focused almost entirely on public communication settings: blog posts, their comment sections and the networked public realm of Twitter. The communication ecology in Brockley, and within which Brockley Central's stories circulate, is not entirely public though. It also includes settings, pathways, technologies and practices that entail direct communication between individuals that is not publicly visible. This has critical implications for the way the hyperlocal public realm is both conceptualized and researched. Several examples illustrate ways in which

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interviewees use one-to-one or small group communication settings to discuss stories or controversies framed by Brockley Central. Whilst most interviewees were not comfortable entering into the fray of the highly performative, declamatory arguments that dominate the public sphere, the controversies that stimulate them do still lead to the activation of potential communication pathways along existing social associations, such as those between neighbours of an individual street, as described by one interviewee: *"We're very exclusive. We also have our own list of tradespeople we circulate but that is literally confined to one street. It's like a sub-group. So sometimes we'll meet and discuss an issue we're interested in, that we've seen on Brockley Central"* [13]. This is arguably an example of what *could* be called a community, in distinction to the wider Brockley public that has been used as a framework to understand the blog and Twitter network. An individual street is clearly spatially bounded, creating a defined and relatively stable population. Its population shares quite clear common interests in the safety and upkeep of their immediate environment, and a degree of obligation derived from the norms of good neighbourliness. The street is arguably then a setting for closer social entwining than that which could be shared with the large, semi-anonymous, imagined social collectivity of the crowd of co-witnesses of the blog, who have very little obligation towards one another, as evidenced by the anti-sociability of the blog comment sections. Rather than enter into this anti-social mediated crowd, individuals in this street form a sub-community within Brockley sustained through the facework of gatherings in which issues on the blog can be discussed. Crucially though it is Brockley Central stimulates these gatherings by providing controversies that need discussion. The street's email list, its face-to-face gatherings, and the hyperlocal blog work ecologically to create the conditions for this sub-community. This ecology also relies on socio-spatial conditions that Ball-Rokeach calls "communication action context" (Kim and Ball-Rokeach, 2006). Short, residential back streets (see figure 5.12 in the next section for a map) like the one that is home to the sub-community in this example provide clear spatial units around which solidarity can be formed. This particular street lies in the east of Brockley where home ownership is high, and this interviewee was the oldest and longest-standing resident of the sample, so it seems likely that residential stability is another condition that provides the context for this particular kind of communicative action. In Ball-Rokeach's work various aspects of communication action context are identified that can also constrain the development of active local communication networks: language barriers, population entropy, educational inequality and, as we have seen is the case in Brockley, spatial barriers that inhibit accessibility.

Figure 6.15: Multiple mediations of an event (clockwise from top left): Brockley Central blog post on whole programme; poster for single event at its location; tweet of the printed line-up on the day; the event itself

Two quotes describe how a one-to-one communicative action with a friend living in the area can be prompted by an issue of interest: the first via email and the second via the messaging service WhatsApp (indicated elsewhere in the interview). *"I've got a friend who lives in Crofton Park and she'll email me and say 'did you see that on Brockley Central?'"* [22]. *"Something can happen on Brockley [Central] blog, and within minutes*

we'll message each other" [26]. The first interviewee quoted does not usually visit Brockley Central of her own accord but is prompted to do so when a friend shares a link to the blog via email. In this way a localized association is stimulated into communicative action by an issue of sufficient interest on the blog. Existing networks of sustained associations form an essential part of a communication ecology in Brockley within which stories told on a hyperlocal blog can reach a public through multiple channels. Two friends, who requested to be interviewed together, recounted enthusiastically how mutual awareness of stories on Brockley Central provides a commonality that makes Brockley both character in and context to the narrative of their privately-shared social life. A WhatsApp group consisting of a private micro-network of friends becomes a stage on which stories from Brockley Central become amplified as shared dramas, and stimulate interactions that re-affirm their common commitment to Brockley as new homebuyers looking to embed themselves culturally:

"26: Seriously something can happen on Brockley blog, and within minutes we'll message each other. Was the harmonica thing on the blog? Or was that separate.
27: No the harmonica thing is… No that's from the Brockley Max programme. But I said to [X] look there's that thing where you can play the harmonica. And he said yeah I saw it in the park. There's a poster in the park. So I took a picture of the poster in the park…and put it on our WhatsApp group. But I had already seen that…
26: …in the Brockley Max mag.
27: Which is on the blog. And I was like oh I saw that again in the actual park, and took a picture."

This anecdote leads us to another intersection in Brockley's communication ecology, which is that between stories that are framed online and those that can be encountered in materially mediated form within the public spaces of Brockley itself. In their telling, an event in Brockley Max (a yearly arts festival in locations around the area) is advertised in both a poster in the park and through a blog post. The poster is a mediation but is situated in space, tying the story materially place, but is limited in information as it only refers to the harmonica event. The blog post is richer informationally and places the event in the context of the wider programme of the arts festival. Both, though, seem to strike this interviewee as important. WhatsApp is used here as a way to instantly pass on an image of the poster – a double mediation in which a material, static presentation of information becomes digitised and passed along communication pathways between friends. Without WhatsApp, the poster might simply be viewed and passed by, but the existence of these communication channels and their facilitation by an instant messaging service invite communicative action. Really, though, the information comes

from the blog post – they had already seen the event in the programme linked to by Brockley Central. So in this case the blog post is instrumental whereas the sharing of the image of the poster in situ in the park is non-discursively symbolic, implicitly indicating something like 'this event is real, it exists in the space we share and together we are orienting our attention to it because of our common desire to perform localness'. This is also a demonstration of how events, like businesses, are part of a healthy communication action context, providing a focus for storytelling as well as a gathering in space which, as we have seen, can lead to public sociability in a way that suggests the importance of the role of hyperlocal media in indirectly setting up encounter. It also highlights the necessity for a multi-disciplinary approach to data collection in urban communication studies. Because blogs and Twitter feeds can be *about* place and are publicly-visible they are fairly well accounted for as aspects of local communication and neighbourhood life. Private messaging of this kind, as far as the literature review for this research could ascertain, is thought of as an issue of relationships, identity, and so on, but never as an issue of space or locality. Whilst their privateness means they are not core to this research, the unexpected finding of their intersection with the public hyperlocal communication ecology in this example points to the potential for a greater understanding of mediated one-to-one communications in neighbourhood life.

In the background to hyperlocal media at the beginning at this work, definitions were referred to that saw it as filling a gap left by the disappearance of print media. Several accounts within this interview data, though, suggest it complements rather than disrupts the role of newspapers and other paper-based mediations. For example, different protocols around communication style and the physical interface of print mediation mean local papers can supplement the use of hyperlocal media for specific issues or for different settings of information consumption: *"I think the journalists for those papers have a strong sense of good practice and if there is something I do read in there I know they've checked it properly and it's reported accurately. So I think they have a reliability that few of the blogs have… I think things like Newshopper come into their own when there are things like Convoys Wharf [a very large development site in Deptford with regional importance] or the hospital [potential closure of the local A&E department] that really needs proper coverage. And I do follow a lot of their reporters on Twitter" [5]. "I think newspapers in general are a much more tactile experience so if I'm in an environment where I can take some time and catch up on a news story, a profile piece, interview. I'd rather read it in a newspaper" [12].* Many local papers are funded purely by advertising and benefit from the greatest possible circulation, and so are delivered free directly to people's homes. Even though most Brockley Central readers reported stories coming to them, via broad interest Twitter feeds or local

businesses for example, online hyperlocal media can still only be accessed by purposive use of a device. Print media can literally arrive on the doorstep and in doing so makes itself seem immediate (i.e. not mediated via the supposed immateriality of a screen, even if the paper itself is a mediation). The Crofton Park blogger interviewed reported that *"I always read the Newshopper when it comes through the door"* [4] and another publisher of a blog combining fiction and news about the same area (that has now stopped publishing and had its Twitter account amalgamated into the other Crofton Park blog) described how *"we look at the Mercury and the Newshopper, because you know they go through people's doors. And we might highlight a front-page article"* [19]. Both these interviewees are storytellers and therefore have more active orientations towards local information than audiences. However, this approach to print media, which arrives uninvited, suggests an important cross-mediation between print and blogs, where print can become a prompt for a reframing in hyperlocal media that are then distributed through other means. Print, then, whether it be pinned on a tree or dropping though the door, has a serendipitous quality allowing it to prompt awareness that can followed up through other communicative means: *"I suppose I do read posters. But they're usually reinforced by other methods of communication. We get the Brockley Society newsletter, if you're aware of that, about what's going on in the area, although it's not that regular is it could be"* [17]. *"The Telegraph Hill festival put a flyer through the door and they were really good at having everything online, but I didn't know about it until it came through the door"* [3].

In a healthy neighbourhood communication ecology, then, single events or issues are framed and reframed across a range of media, allowing stories to be encountered both purposively and serendipitously, circulated to different audiences, and told through different styles of communication that entail different levels of trust and modes of consumption. It is simply not enough to see online hyperlocal media as the *new* setting for public life. Writing before the internet was widely available, and widely used to report at local scales. Hyperlocal media has added to the ecology, intensifying local imaginaries but not making previous types of writing redundant. Michael Warner defined the formation of publics in terms that reflect these accounts perfectly: "no single text can create a public. Nor can a single voice, a single genre, even a single medium" (Warner, 2002, p. 90). Cross-mediation reinforces new realities, whether they be as critical as the potential closure of local emergency facilities or the arrival of a new business: *"if it's on Facebook you might look at it, but if it's on Twitter and then Brockley Central. If just heard about Masala Wala on Facebook, I'm not sure we would have gone straight away. But if it's on the thingy [blog]..."* [27]. *"I went to the Brockley Film Club a couple of weeks ago. I'd seen it advertised a couple of times…. It was [X]*

from Brockley Society who sends out lists of what's going on. And when I saw that it and it triggered me to think I'll go" [13]. The different media that form this ecology operate at a complex range of spatial scales that shape the way they frame issues and the imaginaries projected through them by their audiences. Brockley Central's hyperlocality is nested within a locality, then a region, a city, and a nation, and within it are the micro-localities of Crofton Park and Honor Oak Park or the spatial units of local streets. The final section of this chapter attempts to map and model these scales of media to offer a development of communication ecology theories, showing how Ball-Rokeach's description could be translated into a geographical representation.

6.4.7. Hyperlocal media nested in an ecology of scales

Kim and Ball-Rokeach (2006) provide an extremely valuable conceptual model of how storytelling works at different spatial scales, that can be both illustrated and expanded upon with the interview data and spatial research methodologies of this study:

"CIT [communication infrastructure theory] differentiates macro-, meso-, and microstorytelling agents (Ball-Rokeach et al., 2001) in terms of their primary storytelling referent and their imagined audience. Macrostorytelling agents such as mainstream media tell stories primarily about the whole city, the nation, or even the world, where the imagined audience is broadly conceived as the population of the city, county, or region. Mesoagents are more focused on particular sections of the city (e.g., Westside or South Central in Los Angeles) or specific communities. The residents in their family, friend, and neighbour networks are the microstorytelling agents. When residents talk about their community in neighbourhood council meetings, at a neighbourhood block party, at the dinner table, or over the fence with neighbours, they become local storytelling agents – participants in an active imaging of their community"

(Kim and Ball-Rokeach, 2006)

Following this idea, it will be argued in this section that the hyperlocal public sphere should be seen as situated within larger public spheres beyond the neighbourhood, both geographically and in terms of content, and containing smaller realms of communication, and that this can be represented geographically. These different scales, afforded by different media and techniques, are nested within one another, Russian doll style, with information flowing between them in the form of issues framed and reframed in ways relevant to each scale. What Kim and Ball-Rokeach would describe as micro-storytelling was evident in the use of street-based email lists, as discussed in the previous section. Two interviewees reported the existence of such lists, and from their postcodes it is possible to identify which these are, as shown in figure 6.16, though presumably there are more elsewhere in Brockley. The description

given by one highlights the particular protocol for a mix of face-to-face and small-group mediated communication at this scale: *"We also in our street have a street email group, and a very active woman on our street who organizes a very active street party. And the email group is used for a combination of practical help – so do you have a hoe or some garbage bags – or whether there's been an incident, personal safety stuff, or has any reported the fly tipping at the bottom of the road… The woman who runs the group as soon as somebody moves onto the street she'll go and knock on their door and get them to sign up to the group… What's interesting is, I've noticed that she's successful in getting people onto the email group most of the time. Some people choose not to go onto it, and some people are lurkers I guess, they're on it but they don't participate in discussions, and that shapes your, or it certainly shapes my attitudes to the people around me and my relationships with them"* [24]

Figure 6.16: Two streets with email lists shown in red, identified from postcodes of the interviewees describing this phenomenon

Background map: Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL

A communicative link is established offline leading to a one-to-one association within the spatial setting of the individual street. Email is very personal in these contexts, establishing direct communication pathways between individuals who are mutually known as personas online and as embodied subjects. Email addresses are usually identified with full names that often lack from Twitter or comment profiles, and as they place no practical limitation on length are more likely to carry the expectation of formal, personal, and discursive forms of address rather than the often quick and impersonal forms of writing afforded in Twitter's 140-character limited messages. The mutual awareness between street-level neighbours in contact via email translates into an

expectation of participation that has not been observed as a feature of other forms of communication within the hyperlocal ecology. As well as this mutual expectation for involvement, email has a protocol for greater privacy than, say, Twitter. Although addresses are often publicized for professional reasons, sending unsolicited personal emails is a grey area. In this example, a "very active woman" on the street establishes a face-to-face acquaintanceship with new residents before adding them to the list. Besides the practical need to know their identity and contact details before being able to do so, this suggests that personal email communications benefit from a pre-mediated communication pathway or link of some kind. An effect of this is that "lurkers" – those who consume but do not produce information within the small network of the email list – are notable by their absence from the collective life of the street. As a built environment analogy, this could be imagined as the absence of particular individuals from face-to-face community organization within a small settlement perhaps, where conscious non-participation is keenly felt as an absence from that setting. Lurkers in the geographically larger mediated public life of Brockley Central, or what have been called 'non-public participators', are simply not visible to others in the first place and their observational behaviour does not detract from the communication setting. To repeat an analogy used earlier: the production of publicness by a small number of actors on a theatre stage is not detracted from by observation but requires a silent audience who are willing to imagine their involvement in what is portrayed; a party though, with its communal, direct relationships, is significantly reduced in quality by the non-involvement of anyone present. Like the latter, the email list displays the kinds of constraints of communal life that are the antithesis of the benefits of the world of strangers as described by Sennett, Habermas, and others, transforming anonymity into an actively negative mode of engagement with the social world rather than one that facilitates the progressive, rational nature of the urban public. This phenomenon however is not necessarily inherent to email itself but comes into being through the way email is appropriated to fit a set of ideals, or an imaginary of neighbourliness, associated with the socio-spatial form of the terraced residential street. Figure 6.15 highlights the specific streets in Brockley that correlate with the postcodes of the interviewees who reported having email lists amongst their neighbours, and given that this was 2 out of a sample of 30, it is safe to assume there would be others too. They are both quite short, well-defined streets (in that they do not continue into other streets but stop dead at their ends) which create clearly-delimited spatial communities with set populations. People either live on these streets or they do not – there is no lack of clarity as to who should be included in the list – which correlates with the idea that participation is expected and presumably makes the maintenance of a list feasible in

the first place. A particular spatial morphology, then, creates the context for a particular mode of communicative action.

Figure 6.17: Map showing Brockley Central's imagined 2015 region at widest scale, Brockley Conservation area and Crofton Park as sub-regions, and individual streets home to interviewees that reported the existence of email lists

To recall and paraphrase de Waal's definition, values constructed around imaginaries of what cities are or should be influence the way that technologies are employed socially, commercially or artistically. To expand on this notion based on the observation here, it would seem that imaginaries are constructed differently around various spatial forms that constitute the urban. The city, after all, is not one thing but a complex mesh of socio-spatial forms nested within and alongside one another, with different protocols related to different forms of space and topological relationship: residential streets vs

commercial streets, market squares vs parade grounds.[29] A key thoroughfare such as Brockley Road may be an anchor for close networks of static businesses, as has been seen, but it is also a place for high volumes of traffic, visiting, and the interface between strangers. The short streets supporting these two email lists form part of the "background network" of parochial spaces within which residents tend to outnumber those who are passing through, and which according to Hillier are the "primary distributed loci of socio-cultural identities" (Hillier, 2001, p. 10). This notion can be clearly related to the interview excerpt: identities *are* carried in these small streets unlike on Brockley Road, meaning even in mediated communication neighbours know and note the absence of one another. Another interviewee, discussed in the previous section, described how Brockley Central enters into the parochial street-based flows of information: "*sometimes we'll meet and discuss an issue we're interested in, that we've seen on Brockley Central" [13].* Stories that circulate publicly via the blog and Twitter, and which do not usually lead directly to interpersonal communication, enter into the semi-private circulation of the "exclusive" email list and are able to stimulate congregation. A small embodied community emerges around the direct sharing of these stories, as a subset of an unembodied issue public loosely connected through shared access to the same online issue framing. Email, then, in this type of local use, can be characterised as a mutual, street-level and constraining form of communication that can transform the circulation of neighbourhood-wide stories framed by Brockley Central into the seeds for semi-private face-to-face congregation.

At a wider scale of circulation, and what Kim and Ball-Rokeach would describe as meso-storytelling, is a newsletter published by the Brockley Society, whose primary focus is the Brockley Conservation area. The newsletter is distributed (according to one interviewee, who was involved with the organization) *"three times a year, to 4000 houses. It has a print run of 5500. It's left in newsagents and places like Crofton Park Library. There are lots of people who are not on the internet" [21].* Unlike email, this newsletter is not a channel for direct interpersonal communication. It is however much more embedded within and limited to a specific region in space than, say, Brockley Central's Twitter network which, as we have seen, is concentrated around Brockley Road but extends to surrounding areas and loosely across London. The Brockley Conservation Area (shown geographically in figure 5.17), within which the Brockley Society newsletter is delivered to homes, is a sub-region of Brockley consisting of the terraced historic streets to the east of Brockley Road, that the conservation area exists

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[29] See Hillier (2004, p. 185) for a discussion of how the market square and the parade ground, as almost identical spatial forms in their own right, have extremely different social functions because of their topological relationship to the rest of the city

to protect. This area is where most of the longer-term homeowners in the interview sample reside (as seen in figure 5.3). In interview, the publisher of this newsletter described her means of collecting and distributing information. Like the smaller-scale bloggers described in section 6.4.4, she collects many stories through physical use of the area – *"I'm like a roving reporter at times"* [21] – and through established personal relationships with people in strong informational positions, such as those running community organisations and working in the local council. These individual connections, though, sometimes have insufficient weight and in these cases Brockley Central's larger and more visible virtual public offers a platform for greater effectiveness: *"for instance that [Brockley Central] is where you find out it is going to be Sainsbury's, the new supermarket at Brockley Cross - which I had heard about and we'd written a letter to the developer saying 'please don't, we'd rather have the doctor's surgery and the chemist co-locating.' But then Brockley Central tells us it's going to be Sainsbury's. The developers didn't even bother responding to my email or Brockley Cross Action Group, and that tells you what they think about community. But [BC publisher] or somebody must have got hold of them and researched it"* [22]. She also described several other characteristics of the intersection between Brockley Central and her own print-based circulation of information. For example, that sometimes events or issues that are specifically located in the spatial realm within which the Brockley Society newsletter operates need to reach a wider audience. In these cases, information can 'piggy-back' upwards in the spatial hierarchy of public spheres and enter into Brockley-wide circulation: *"he [BC publisher] put the front garden sale on, and he even put the list on when it was up, which was only about two days before it happened. And that was really welcome because he also puts our AGM on"* [22]. The Brockley Society, as a face-to-face organisation based in a more limited spatial realm than the blog, can create events through its more community-like stable associations with people in the area, in a way Brockley Central would not. However, these events gain traction through the ability to be communicated upwards via Brockley Central's blog and social media, as seen earlier in the example of the yard sale. Brockley Central relies on the existence of smaller realms of communicative action, like the Brockley Society, to create news while the latter relies on Brockley Central to distribute that news further than its own communication channels can reach. In other words, a communication ecology requires a range of scales to be effective. Furthermore, a newsletter distributed to a set number of addresses can also be thought of as only *semi* public. Unlike Brockley Central, it is not a realm of circulation that anyone can enter into but is constrained by residential location. So just as urban space can be described in terms of a scale of publicness, in which the residential street of the background network is parochial rather than fully public, the newsletter is a parochial

communication setting with a spatially-defined barrier to entry. This clearer spatial boundedness of print circulation was implied within several accounts: *"I live on an ex council estate up there and I get so irritated because the free newspaper, the South London Press, I see it getting delivered to all these other places along the way, and I stopped the guy the other day and said "what do I need to do to get my one?" and he said "we're not allowed to deliver in the estates because it's too dangerous" [15].* "*From time to time the Mercury or Newshopper get delivered. Some areas get them consistently; we get them occasionally" [13].*

The map in figure 6.17 illustrates how Brockley Central and other media referred to so far in this chapter so far can be visualised spatially, to aid an understanding of how stories move up and down through spatial scales. This kind of visualisation extends the proposition made in chapter 4, that place-specific media (of which hyperlocal could be thought of as one type, or a general descriptor) should be represented two-dimensionally to suggest that it should also be seen as being nested within and containing other spatial realms defined by communication flows. As issue framings circulate between these different realms, they rely on varying degrees of social distance between publishers and readers. For example, the email lists referred to by interviewees do not frame issues themselves but channel Brockley Central's issue framings into small-world, micro-storytelling domains of mediated communication in which congregation is both possible and expected. The Crofton Park blog described in the previous section is a meso-storytelling agent but at a smaller scale than Brockley Central, and is generated by a mix of face-to-face and mediated contact. Another interviewee, who tweets in a personal capacity about daily observations of Crofton Park, observed that *"Crofton Park Life is quite a small area. It seems to be like a branch of off Brockley which covers a bigger area, like Brockley Central" [19].* Although Crofton Park is similar in scale spatially to the Brockley Conservation Area, the protocol of the blog as opposed to the newsletter is that it has much lower barriers to entry.[30] The publics formed around a Crofton Park blog have the potential to span the boundaries of Crofton Park as spatially defined, whereas the newsletter is much more rigidly bounded in terms of its circulation and therefore the residential location of its audiences. Overarching all of these realms is Brockley Central, which as we have seen has very weak socio-spatial boundaries, with a public that spreads across south London and beyond. Furthermore, Brockley Central is nested within the macro-storytelling of the city-scale public sphere. The way its publisher frames issues is not

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[30] But not, as commonly thought, no barriers to entry, as the internet is also restricted spatially in terms of the access to linguistic and cultural knowledge that is shaped by geography. As Morley argues "we in fact do still inhabit actual geographical locations, which have very real consequences for our possibilities of knowledge and/or action" (Morley, 2007, p. 203).

purely in terms relevant to residents of Brockley but in response to national controversies or issues, speculating on their impact on Brockley. *"What I like, what I think about Brockley Central, because though it's really infatuated with house prices, any of those national stories that come up they'll look at the impact on Lewisham. They'll say house prices have gone up more in Brockley than anywhere else. That's when they do bother to go through the figures and look at how it affects locally"* [25]. A story that currently preoccupies city-wide and national publics, such as the crisis in property availability and prices, is reframed in local terms using both data and cultural phenomena. Once in circulation in a new, Brockley-specific form, it is re-framed again as issues in the relations between individuals communicating in person, through private communication networks such as an email list or in third spaces: *"I don't regularly comment on the pages I read. I'm a silent observer on the whole. But at the Telegraph Hill Centre [community hall where her son rehearses] we talk about things that are quite specific to our connection, so schools, house prices. It's something people have been aware of because of the area in transition I suppose"* [7].

Repeatedly, the overriding theme is that discussion of local issues does not usually take place *through* Brockley Central. Instead the framings it offers are re-framed in other mediated communications at increasingly smaller scales, with unmediated interpersonal contact playing a greater role as these spatial scales decrease. At the most micro level, individuals become storytellers to one another, but for this to take place a rich ecology of local storytelling at varying scales is required, embedded within a macro national and supra-national public debate. Hyperlocal media, then, should be placed conceptually within a geographical spectrum of media at different scales, being contained spatially within macro-level public spheres and containing within it micro-level networks of private or semi-public information flows. In this section, this has been represented relatively simply (although in a way that is arguably novel and an aid to thinking about the way media is spatial in a neighbourhood) as a map of 'imagined' regions of space within which a small number of media sources referred to in these interviews operate, but does not capture the modes of communication through which stories "piggy-backs" up and down through these scales. The final following and final section of analysis of this method draws from the communication practices reported by interviewees to create a hypothetical model of these modes, including space as a factor but represented diagrammatically rather than geographically.

6.4.1. Modelling the scalar realms of storytelling

Where figure 6.17 was a quite simple map of the spatial realms imagined for various storytelling agents, the model presented and discussed in this section is a non-geographical schematic of notional communication pathways that constitute each of
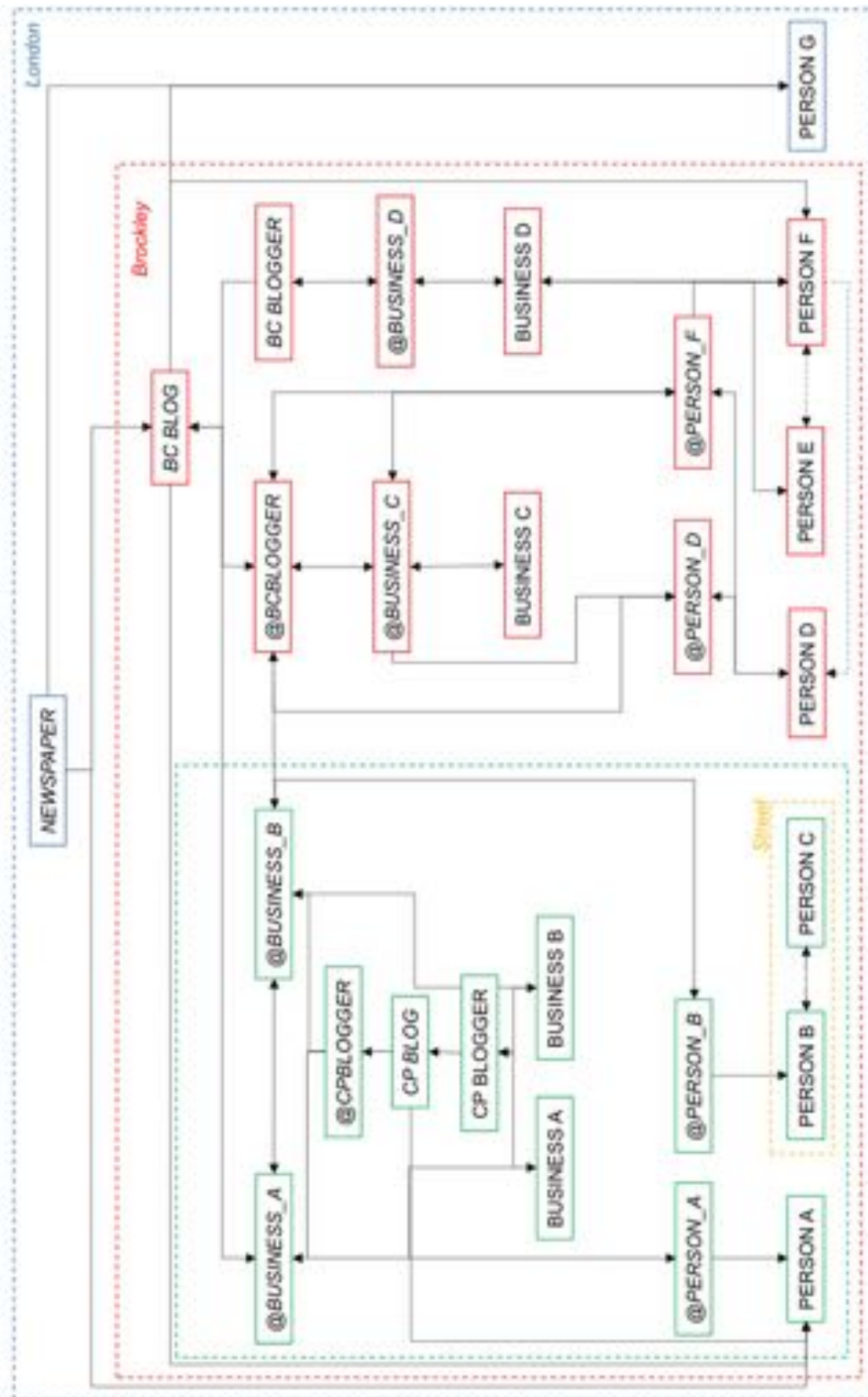
Figure 6.18: Schematic of Brockley's communication ecology with three nested spatial scales. Green boxes represent actors specific to Crofton Park, red to Brockley and blue are London-wide. Information pathways are solid black lines with arrows in the direction of the flow of information. Dashed black lines represent imagined or mutual awareness without flow of information

those realms. It is not intended to represent every communication pathway and setting raised in the interviews (an undertaking addressed in the following chapter) but to abstract and simplify them for the sake of discussion. The model in figure 5.18 illustrates a number of situations *similar to* those described in the interviews and relayed in this chapter, based around a 'BC Blog' and various other hypothetical actors in the ecology it is situated within. Imagine, for example, that Person B and Person C are neighbours on a street in Crofton Park using email to communicate directly and reciprocally with full awareness of one another's identities. As we have seen, street-level protocols are more likely to be mutual, involving individuals that are fully known to one another in person and through mediated communication. Person B, though, also has the Twitter account @Person_B and there is an information pathway between that account, as a technological actor, and the individual themselves, that is activated when they look at Twitter. Person C, on the other hand, does not use social media. @Person_B is linked to the Twitter account @Business_B (no relation is intended by the use of the same letter) by the information pathway of a following relationship, which itself is linked to the Twitter profile of @BCBlog via which stories from BC Blog itself are circulated. BC Blog operates at a Brockley-wide scale, passing stories via its Twitter account to the account of Business B, which is located in Crofton Park, and in doing so enters a smaller geographical network of circulation between itself and Business A, who being located near to one another are more likely to be connected through Twitter. Being local to Business B, and sharing the spatial identity of Crofton Park in online self-presentation, Person B is more likely to follow that Business B on Twitter than they are Business C, which is located elsewhere in Brockley. So although Person C is does not have an information pathway directly to BC Blog, as they do not use Twitter or go to the website directly, they can become aware of issues it frames via micro-scale storytelling that takes place in person or through direct email communication with Person B, bringing them into the public sphere created by BC Blog without having any technologically-observable communicative link with it.

Person B, though, does not actually use Business B physically – perhaps it is a café and they do not drink coffee. Business B is an information resource for Person B *only* through media, and not as a spatial third place. Also their relationship is non-reciprocal: Person B simply uses Twitter as an access point to the circulation of stories in the local public realm but does not attempt to generate two-way communicative relationships online with other locals of business, or in attempting to do so has not been followed back on Twitter. The Twitter profiles @Business_A and @Business_B both have reciprocal links with @BCBlogger, the Twitter profile of the publisher of BC Blog,

meaning they can also pass stories to BC Blogger. This does *not* happen in person though: BC Blogger has no direct unmediated links with storytellers or audiences and all information he himself produces, through the act of writing and publishing stories, is translated via the non-human actors of the blog and social media profile to reach individuals. Business A, though, has reciprocal in-person relationships with two individuals - Person A and CP Blogger (the publisher of a blog about Crofton Park) – who use the business on a regular basis and do storytelling in person as they do. Business A also has a reciprocal mediated link with @BCBlogger, via its Twitter profile, as @BCBlogger follows the business for access to the stories it creates about itself and its surroundings. Via this chain of links, a story might emanate from CP Blogger and end up on BC Blog even though BC Blogger has no direct communication pathway with CP Blog. Person A, for example, may have received notice by post from the local authority of a planning application, a potential built environment issue, for a location near to their home (as is required by planning law) and told the owner of Business A over the counter while buying coffee, who then passes information of this proposed new development on to CP Blogger as she does her rounds of the locality, who in turn tells Business B, who tweets the story to @BCBlogger, who re-tweets it to a Brockley-wide public. Again, this hypothetical situation based very closely on the kinds of phenomena described in interviews, illustrates firstly how hyperlocal media is populated with information through micro storytelling that works its way up through spatial scales of media, and also that it is situated within a network of associations through different modes of paper- and internet-mediated communications as well as unmediated communication situations.

This hypothetical model can also be used as a tool to think about the way that these scales of communication afford the development of imaginaries of locality. Perhaps BC Blogger, with the prompt of a tweet mentioning the development in the limited setting of a 140-character message, researches the issue further and publishes a fuller story on BC Blog. Person A, as a regular direct visitor of BC Blog, sees this issue that is very local to their home in Crofton Park reframed as an issue of common interest for a Brockley public, which they understand because of the distribution of the issues BC Blog frames to be a public that reaches across a larger geographical area than that which Person A uses day-to-day. Seeing the issue framed in this way, Person A imagines themselves as part of a Brockley-wide public and expands their notion of what is immediately local to a wider spatial scale than that of the sub-area of Crofton Park. Person F, also a direct reader, lives in another part of BC Blog's region but in seeing this planning application as an issue of local concern for the blog incorporates it into their notion of the spatial meaning of the label "Brockley", strengthening the

perceptual merge between Brockley and Crofton Park. In the section of the diagram contained by the red 'Brockley' boundary but not by the green 'Crofton Park' boundary, three individuals not sharing a street share two different kinds of imagined or mutual indirect connection. Person F and Person E, for example, are both regulars at a café with reciprocal relationships with the business owner, in that they both engage in conversation with the owner rather than simply using the café to buy coffee. The business owner has perhaps mentioned them to one another, introduced them in passing, or they have simply begun to recognize one another as locals from regular co-presence in a third space. They are part, then, of a virtual community of potential but unrealised associations, but both derive a sense of connection to the locality through the awareness of that virtual community. They imagine themselves as neighbours through regular use of a third space. Person F, being the communicative type, has also established a reciprocal link on Twitter with @Business_C and @BCBlogger. Person F is unusual in this regard, but let us imagine that they regularly share photos and links of issues or events via Twitter, and so have become a communication asset for BC Blogger and @Business_C, who sometimes retweet messages posted by @Person_F. Person D, who has one-way links with @BCBlogger and @Business_C, has seen these retweets and followed @Person_F on Twitter. Person D has become aware of Person F, perhaps imagining them as a neighbour and assuming a commonality based on interest in Brockley, even though their link is non-reciprocal and entirely mediated. Person D and Person F are part of a virtual community of interest in Brockley carried out through communication about Brockley, and although they are not known to each other outside of Twitter or living in close proximity, Person D imagines a neighbouring relationship with Person F performed through this common interest.

The schematic also places this hypothetical Brockley communication ecology within the context of the wider public sphere of London, for which there is a newspaper discussing city-wide issues. Person A is a proactive follower of the news at all spatial scales, reading CP Blog, BC Blog and the Newspaper, imagining themselves as a member of distinct but overlapping publics for all these. A single issue, similarly, may be framed in distinct but overlapping ways in these three settings. The Newspaper reports that house prices are rising faster than ever; BC Blog reports that Brockley's prices are rising even faster than the London average reported in the Newspaper; and on CP Blog a specific planning application (the one nearby to Person A's home, that earlier they mentioned to Business A) is framed as a response by developers to capitalize on Brockley's rapid house price rises. Person G does not live in Brockley or Crofton Park, but has come across BC Blog by searching for information online about the house price rises they read about in the Newspaper. They are interested to keep

reading about how this issue is affecting another area of London, becoming part of BC Blog's public despite not living in Brockley. The spatial realm occupied by BC Blog's public, then, stretches across a wider geographical area than the region within which the blog itself frames issues.

6.5. Conclusions

Reflecting on the interview data through this hypothetical model is a response to a core concern of this research. It hopefully demonstrates the importance of a multi-method approach to urban communications, capturing and combining machine-readable communicative associations such as Twitter following relationships, non machine-readable communication associations such as in-person storytelling between neighbours, mappable data that builds an accurate picture of the spatial scales and distributions of media and their publics, and also imagined social associations and fields of care that despite being intangible are important constituents of the way hyperlocal media form the perception of place. The communication practices it describes are not presented here as a definitive set of data on the way people communicate in and about Brockley, but as a set of complex situations involving processes too often thought to occupy different phenomenological realms, whose bringing into one framework argues for the importance of a more nuanced approach to understanding media as urban than that which has previously existed. As such, it is also worth concluding this methodology by recalling in detail the themes in communication practice that were observed in interviews, and the conceptual frameworks via which they have been explained. The majority of interviewees described their engagement with Brockley Central and its social media feed in terms of the passive consumption of information about the area, without participating in discussion via Twitter or in comments on blog posts. Rather than suggesting that this means Brockley Central is ineffective as an online 'public space', this kind of engagement was described as *non-public participation*: observational rather than interactive behaviour which has been observed in interview-based studies of online forums as being common, but is invisible within the mediated communication setting itself. Non-public participation is predicated around information gathering, or 'just being informed', and therefore does not lead to social organisation that leads directly to action over built environment issues. The value of being informed, it was argued, can be thought of through theories of the public that suggest all readers of texts are participating in a public for that text, and enter into a virtual association with other readers. This virtual association was described by interviewees as the sense that 'everyone', or 'people' in the area were reading the same stories as them, affording the imaginary of the neighbourhood as a social entity rather than simply a spatial one. Hyperlocal media, in this case, is a stage on which publicness is produced. The

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unevenness of the situation in which a few actors, such as the small group of vociferous commenters on blog posts, perform a discourse about the locality for an audience of onlookers, was argued to be a defining characteristic of the public, and the theatre a strong metaphor for the place of hyperlocal media within the lifeworld of its readers. Although those readers are not visible within the communication setting of the stage, their non-public participation makes the existence of the stage possible and they share invisible or imagined connections via their shared witnessing of it. This imagined connection was described in terms of *storytelling*, in which information that is not necessarily instrumental but ties people together simply through the act of sharing, affords the perception of social collectivity that is rooted in the particular place those stories are about. The unevenness of the blog as a communication platform was reflected also in the Twitter network analysis, both in network and geographical terms. The network of following relationships around Brockley Central does not consist of an all-to-all and everywhere-to-everywhere set of connections, but is focused around a core set of actors who broadcast outwards to an audience of onlookers whose connections to one another are imagined rather than encoded in Twitter, and who cluster in spatial groups of which the one located at the topological centre of Brockley (on its high street) are the most connected.

The role of businesses as part of an infrastructure of communication in the neighbourhood, observed in chapter 5, was qualified further. As public interfaces between the space of Brockley and its mediated public sphere they can be the mechanisms by which stories told in person get translated into mediated communication settings. By triangulating between people both in person and via Twitter, they enable members of Brockley Central's public to realise their indirect virtual connection and enter into face-to-face storytelling, and even friendship, by overcoming the civil inattention characteristic of the public realm in a remediation of the mechanism of the third space. As settings for communication via print media, in the form of flyers and posters, they allow people to encounter stories and events across different media, reinforcing the information posted on Brockley Central, as deemed necessary by Warner in his characterisation of how texts produce publics. Through their Twitter profiles, they retweet Brockley Central, sustaining the circulation of stories through time, as also deemed characteristic of public texts by Warner, and retweet one another, performing solidarity to a public of onlookers within a specific spatial realm that is subsequently perceived as parochial. Businesses are also spatial markers around which people create mental maps of what is local, or a *field of care* as it was described. As businesses and the stories they generate form such an important part of the blog's content, there is a relationship between the distribution of issue framing and this field of

care, and furthermore it can be reshaped for people, once they start reading the blog, to cross spatial boundaries that previously constrained their use of space.

In contrast to publics for storytelling in hyperlocal media, storytellers themselves were shown to have a much more active approach to the seeking of information, which places hyperlocal media in a different orientation to their lifeworlds. Those who tell stories through media for territories smaller than Brockley Central's find the social character of their use of the neighbourhood intensified in a real, rather than imagined, way, as visits to local businesses become the premise for mutual information sharing. They also have more one-to-one private channels of communication with people across the area, rather than just neighbours. Revisiting the theatrical metaphor, their relationships with other visible actors are intensified both 'backstage' (through the production of stories in private one-to-one communications in person or through private media such as email) and 'onstage' (through the broadcasting of those stories in public media such as Twitter and blogs). Becoming a visible actor in public meant consenting to being engaged in storytelling as part of the daily use of the neighbourhood. In contrast, Brockley Central's blogger, whose stage has a much larger audience, keeps his mediated public persona and embodied persona more separate because of the unsustainable strain that control over such an intensely public stage would place on his unmediated public interactions, with shopkeepers for example. As such, these interviews demonstrate that not only is media adapted for use in cities around imaginaries of what socially constitutes the urban, as argued by de Waal, but that different protocols for communication derived from these imaginaries can be linked to spatial morphologies at different scales, and from these protocols different assemblages of mediated and unmediated communication practice emerge. At the micro-scale of email lists set within small residential streets, in which links to stories on Brockley Central are shared and discussed or private meetings arranged, the practice was for the moderator of the list to add new residents by introducing themselves in person, literally knocking on the door. With the combination of embodied encounter and direct interpersonal communication pathways, the protocol in this setting disallows non-public participation, in that an unwillingness to contribute to storytelling was noticeable and seen purely as non-participation. The longer, linear high street of Brockley Road is the setting for a tight-knit but public network of communication pathways between businesses on Twitter, through which material acts of solidarity such as the sharing of stock and tools can be organised, and mediated acts such as mutual promotion through the sharing of stories about other businesses on the blog can be carried out in front of a virtual audience. As described above, storytellers at the sub-hyperlocal scale of Crofton Park, or the Brockley Conservation Area (probably

within would be considered a meso level in communication infrastructure theory), used a mix of face-to-face and direct interpersonal mediated communication to gather and tell stories, and then broadcast them through public or semi-public media, creating a protocol for personal acquaintance and inter-subjectivity between storytellers but allowing for non-public participation and passive spectatorship on behalf of audiences. At the larger, but still meso, scale of 'Greater Brockley", or Brockley Central's region, both the gathering and the broadcasting of stories takes place through media, with less reliance on personal acquaintanceship and inter-subjectivity. Brockley Central's region is large enough to be considered a 'world of strangers', so that its communication protocol is for disconnected spectatorship rather than the formation of links between individual members of the public. However, though its imagined region is large, in practice both Brockley Central's region and its publics are concentrated around Brockley Road, and its public can sometimes materialise in the third spaces along that road in face-to-face storytelling around common knowledge of the issues framed in the blog. At the macro scale, not explicitly referred to in interviews but characterised to highlight the particularity of the possibility for the materialisation of publics at the meso scale, publics for national stories do not tend to congregate other than in large, representational, pre-planned events such as demonstrations.

Finally, and possibly most importantly, it is argued that to describe the interrelation of hyperlocal media and the socio-spatial phenomenon of place, it is essential to place media within an ecology of mediated and unmediated settings for communication through which stories circulate. Various examples were given, including the sharing of links to blog posts by email or messaging services like WhatsApp, along with photographs of posters or places that pertain to those stories and reinforce them through cross-mediation. That ecology includes a diversity of spaces, or what has been described as communication action contexts, from residential streets to green spaces to mixed use high streets, that generate different types of stories and provide the setting for different types of storytelling. This context for communication also benefits from a range of identifiable places that nest within one another, such as Telegraph Hill, Crofton Park, or the conservation area, which can be identified as spatially distinct and are the context for parochial networks of mediated and face-to-face storytelling that works its way up through spatial scales of public spheres through different media, and vice versa. In this kind of approach, the content of stories themselves is secondary to the observation of the modes, settings, and infrastructures through which they circulate, which can be modelled as a representation of a hyperlocal communication ecology that includes scale, though is not geographical.

Abstracting the interview data in this way also demonstrates the importance for urban communications of Latour's notion of the actor-network, as introduced in chapter 5. Technological actors – in the form of Twitter profiles or blogs for example – are not stand-ins for the Twitter users or bloggers that operate them. If two Twitter profiles communicate with one another without any association directly between the individuals that own them, those profiles play different roles than if the individuals have unmediated contact too. The Twitter profiles are actors in their own right, whose communicative role depends on other, non-machine-readable factors, such as the storytelling practices of the people who operate them. Two people who read a blog would not usually be thought of as networked with one another, but part of a group of readers. In the communication ecology model presented here though, with the blog as an actor in its own right, those readers are part of a network of communication pathways, linked to one another at one remove by a blog. For one blogger, unmediated communication with other human actors leads to creation of stories, whereas another only relates to people via the non-human actor of their blog or Twitter profile. Latour argues for a notion of media in which technologies are not just the means by which people communicate but things they communicate with, and that can communicate with one another. The network of associations that take place through media cannot be represented as a graph of purely machine-readable links or purely human social ties. Hyperlocal media though is not just set of actors floating in the ether. It is set in a spatial context, but furthermore it contains non-human actors that *are* places. The following chapter demonstrates a final, experimental methodology that extends Latour's theory further by drawing on the three methodologies presented so far to propose a geographical network model of the interview data that includes specific spaces – third places, public parks, and so on – as non-human actors and in doing so re-frames communication ecology as spatial.

7. Method 4: Placing the Networked Hyperlocal Communication Ecology

7.1. Introduction

Everyone knows that societies involve technologies, texts, buildings and money. But what to make of it? Often in practice we bracket off non-human materials, assuming they have a status which differs from that of the human. So materials become resources or constraints; they are said to be passive; to be active only when they are mobilized by flesh and blood actors. But if the social is really materially heterogeneous, then this asymmetry doesn't work very well. Yes, there are differences between conversations, texts, techniques and bodies. Of course. But why should we start out by assuming that some of these have no active role to play in social dynamics? The principal of material heterogeneity says that there is no reason to do so. Instead it says that all these elements and materials participate in social ordering"

(Callon and Law, 1997)

This chapter explores the possibility of a technique that is based on the fundamental assertion of actor-network theory – that the social is materially heterogeneous and is constituted by both humans and non-humans draws from all those presented so far – and therefore allows the different methods demonstrated so far – issue mapping, network analysis of public communication, the possibility of placing those networks spatially, and grounded observation of communication practices in Brockley – to be combined into one form of analysis. Following Callon and Law's definition, non-human elements of the hyperlocal communication ecology are analysed as active participants in local networks of communication, and represented as part of the social dynamic of a mixed network of people, places, media sources, and so on. It will be argued that this kind of representation is a new and valuable way to study the interrelation of communication media and space, as it builds them into the same model of social dynamics rather than separating them into separate realms whose impact on one another can be measured. This argument is made heuristically: the knowledge created through the development, testing, and critique of this experimental method, as a response to the evidence and the critical understanding built throughout the research, is itself the outcome rather than the network data it produces. The method and analysis presented in this chapter is intended as a means for thinking about how media and space can better be synthesized in research about urban communication. Clearly, as it draws both data and techniques from the three methods presented so far, it was developed towards the end of the study as a response to the data and the concepts

built throughout this research, rather than designed in to data collection methods. It will not be argued that such a research method is ready for scientific use. Rather, in line with the aim of this research, it is a reflection on the possibility of combining the epistemological frameworks (not necessarily the data) of the geographical mapping, network analysis, and grounded theory approaches outlined so far, in a hybrid approach that could enrich future work. The chapter starts by expanding the account of actor-network theory already given, forming the conceptual background to this method. Following that, the *socio-technical interaction network* is introduced as a specific, but underdeveloped, research approach that has previously attempted to translate actor-network theory into practice. Techniques from this approach are borrowed and developed further, to propose a means to build a materially heterogeneous network of communicative associations on the basis of the qualitative evidence collected in interviews. The resulting network graph is analysed and various measures describing the communicative value of different actors in the graph used to illustrate qualitative data about how and why those actors communicate. The network graph is also recombined with geographical representation, by the same means as the Twitter network graph in chapter 5, to illustrate how the infrastructures and issues of storytelling overlap spatially. The overall aim is to argue for a complex approach combining a human-centred understanding of communication with spatial factors and network values when describing the way media operates within the city.

7.2. Theoretical Background: actor-network theory

Most studies of urban localities and communication technologies have been based in the understanding that society, even at a local scale, consists of social ties of varying degrees of strength that directly link individuals, with media acting simply as carriers of these ties. Keith Hampton and Barry Wellman's *Netville* studies provided invaluable evidence showing that the introduction of internet-based communication within a neighbourhood could stimulate, rather than replace, face-to-face playing out of social ties and this opened the way for a much needed empirically grounded refute of the prevailing contemporary expectation that the 'virtual' would eventually replace all forms of socio-spatial congregation its attendant urban concentration. Nonetheless, as will be argued in this chapter, the dichotomy between a *replacement* and a *stimulation* of local face-to-face ties is too simplistic a notion of the relationships between people, places and communication. As has been seen throughout, localized society does not only operate in the mode of the *community* – a network of stable interpersonal ties – but also in the mode of the *public* – which has been defined as an imagined collectivity between strangers sharing mediated or spatially-defined communication settings. The public tends towards virtuality, which is not an artefact of the internet but of all forms of mediated public communication, which always involve a "virtual community of readers

and writers" (Adams, 2009, p. 34). So whilst some kinds of communities may be able to be traced as networks of people, with technologies only minimally involved in the link between those people, the local public sphere is always an assemblage of – to paraphrase Callon and Law – technologies, texts, buildings and money, plus people, places, issues and organisations. To recall, Bruno Latour's actor-network theory is a rejection of what he calls the "sociology of the social", which treats the social as a stable reality independent of, but subject to influence from, technology. He argues for "sociology of associations" between human and non-human actors including technologies, texts, and the built environment (Latour, 2007). This was touched on in section 5.6.2, which critiqued the notion of the Twitter network, which is a materially homogeneous network of a particular kind of communicative link that is not a sufficient definition of the complex ways people associate with one another and with technology. Latour clarifies further his understanding of the meaning of media and technologies in the essay *The Berlin Key, or How to Do Words With Things*, which describes a complex relationship between night guard, residents, visitors, and strangers in relation to a particular kind of key allowing a door to be locked from within and without. His conclusion, that it is a falsehood separate technology and society and look for their mutual impact, is roughly summed as follows: "A social dimension to technology? That's not saying much. Let us rather admit that no one has ever observed a human society that has not been built with things. A material aspect to societies? That is still not saying enough: things do not exist without being full of people, and the more modern and complicated they get the more people warm through them" (Latour, 2012, p. 10).

To interpret, technologies are not objects but ways of doing things encoded within materials. They do not represent social forms or ideals, but act them out as they are used. Technologies are *constituents* of social reality, rather than representatives or carriers of it. This is a somewhat similar proposition to a foundational idea within the space syntax theory of the built environment, which observes a feedback loop within urban form (Hillier, 2004): space is compartmentalised architecturally into functional components to answer the needs of social practices, which in turn are perpetuated by the relationships between those components. Instead of the study of the effect of technology or society on one another Latour proposes the study of chains of interaction between what can roughly be divided into humans and non-humans, although even this distinction is blurred as recent and not-so-recent theoretical and technological advances in relation to cyborgology tell us.[31] Notwithstanding this blurred delineation,

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[31] See Haraway (2006), Braidotti (2013) and Featherstone (2000).

Latour assures us that "the elements, whatever they may be, are substituted and transformed" (Latour, 2012, p. 12). In other words, change does not enter into social life via the meeting of two complete systems (society and technology) but by the micro-scale substitution or transformation of elements within a material association between actors. This sets up an important distinction between an understanding of technology as "intermediary" and as "mediator". Seen as an intermediary, a technology "does nothing in itself except carry, transport, shift, incarnate, express, reify" (Latour, 2012, p. 18) the social relations between the humans on either end of its effects (such as those with the key, and allowed access, and those without, excluded). If the technology is a mediator (such as the Berlin Key that gives Latour's essay on this topic its title) it can "make" or "form" social relations. "The intermediary was not a means to an end, whereas the mediator becomes at once means and end. From being a simple agent, the steel key assumes all the dignity of a mediator, a social actor, an agent, an active being" (Latour, 2012, p. 19). In *Reassembling the Social*, Latour builds on these definitions, loosely describing a method for studying social assemblages as networks of associations between human actors and non-human actors: an actor-network that can be identified as the accumulation of communicative acts between these actors. Non-human elements within this network are not simply the inactive carriers of intention from one human actor to another, but settings created by humans to allow for certain types of association, and creating other unexpected ones. What, then, is an association? What it is not is a "social tie", a direct and contractual obligation between embodied subjects (Kavanaugh et al., 2005) (Granovetter, 1973), of which the technical (communication as well as the built environment) is the passive medium. Even where ties are described as "weak", it suggests that they have some kind of ontological completeness. They are thought of as 'nouns': whole entities that exist outside of and between human actors, which can then be described with adjectives like "weak" or "strong" (adjectives, of course, are reserved for nouns). Actor-network theory reframes these nouns as *verbs*:[32] associations are performed through communicative actions, and may be described with adverbs ("weakly" or "strongly" acted out). Communication could be spoken, between bodies physically present in a spatial communication setting such as a park or pub, or discursive and made via non-human actors such as communication technologies. The important point is that communication is an action, and that only through acting can an association exist, and only for the duration of the act. What can be thought of as permanent and traceable is a potential communication pathway between two actors: two storytellers acquainted with one another who speak to each other in chance encounters online or in a local shop, but

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[32] My metaphor, not quoted from Latour

that are in no way tied. An association indicates that communication between actors is possible, but it does not guarantee that association will be active at every given moment. 'Associational life' describes the social world of a neighbourhood by encompassing the possibility for non-committal public communication, more constrained community communication, and the full scale of mediation. As argued in the previous chapter, two human actors that both associate with a non-human actor (for example two people who both use the physical infrastructure of a local park, or who read the same blog) are not thought of as belonging to a social "group" (i.e. of park users or blog readers) but are connected at one remove in a network of potential communication pathways (their associations with the park increase the likelihood that they would associate with one another, for example, as they are closer in a network). In Latour's actor-network theory, what activates and re-activates associations along these communication pathways are "controversies", which are what have been largely referred to here as issues: shared concerns, changes, events, disputes. Here, the non-human element becomes clearer. Controversies almost always involve non-human elements. Given that urban locality is the context for this research, buildings, and other elements of the built environment, are a pertinent example. Any change to the built environment – new property developments, the decline of quality of public space, improvements to public space, businesses opening, closing or changing – could be thought of as a controversy. Rather than positioning these changes as external topics to which a stable group (the nebulous "local community") responds, they become the centre of an actor-network around and in response to which new, potential, and latent associative acts are carried out. Some actors will be required to communicate constantly about a set of controversies – the local planning officers for example – and their constantly-maintained association takes on the appearance of a solidified social tie. Others may choose to communicate regularly about such controversies across a relatively wide "local" area and regularly make use of their potential communication pathways and re-activating their associations. Others may just communicate very rarely, or even once, over a particular controversy that is central to their "lifeworld" such as the large mixed-use property development at 180 Brockley Road, next to Brockley station, forming one-off associations with others who join the temporary actor-network around this controversy, and then allow these associations to die away as the shared concern is resolved or fades in urgency. A "community", then, is not a networked social grouping in this interpretation, but a concentration of potential networked communication pathways that is sustained by the fuel of controversies and the communicative acts they bring about.

7.3. Methodological Background: socio-technical interaction networks

This theoretical framework has been put into practice quite rarely, and I would argue has been undervalued. In the form of "socio-technical interaction networks" (STINs), though, Kling et al. interpret Latour's sociology of associations in methodological form. Their study reconstructs limited domains of scholarly communication as sets of human and non-human nodes linked by edges representing heterogeneous modes of association. Their 2003 paper (Kling et al., 2003) is the most widely cited, and indeed one of the only, sources to offer a specific methodology for building an actual actor-network of this kind. There seems not to have been further development of this idea since, but it seems to be the best precedent available for reconstructing the associational world reported by the respondents to this research. In making use of it and offering a more detailed development, the hope is that the socio-technical network could be revived as a model for urban communications, as it dovetails with actor-network theory and urban storytelling to offer a nuanced qualitative picture of a specific set of socio-technical relations that neither design, social network analysis, nor dualist 'social impact of technology' approaches can.
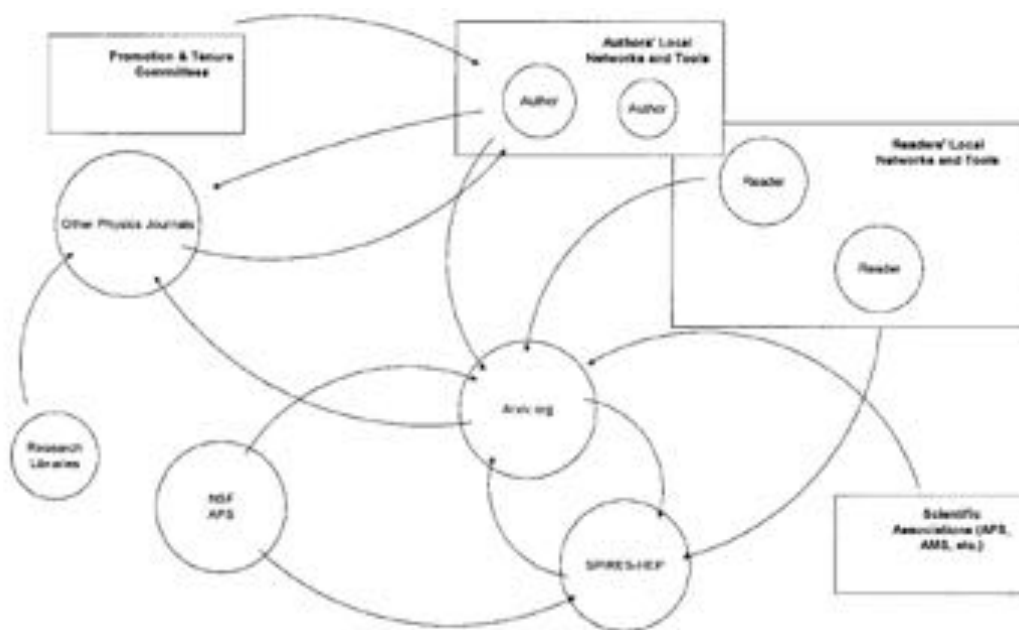
Figure 7.1: The SPIRES-HEP and Arxiv.org online academic repositories embedded in a socio-technical interaction network (reproduced from Kling et al., 2003, p. 53). This is a notional diagram similar to the model presented in the previous chapter, which represents types of actors rather than specific individuals, and the communication pathways between them, without regard for spatial scales or locations

As shown in figure 7.1, Kling et al. used scholarly communication networks as the basis to experiment with a model for the socio-technical network of various aspects of academic production:

"Sociotechnical network models examine e-SCFs [electronic scholarly communication forums], identify key relationships between different technologies, social actors, resources (including money flows), and legal regulations. The term 'network is metaphorical, and refers to the structured relationships between these diverse elements in the use of a particular e-SCF"

(Kling et al., 2003, p. 48).

The acknowledgement by Kling et al. of the network paradigm as a 'metaphor' is important. "Socio-technical networks", they argue, are not literally "wired" (an outdated metaphor now, but one that suggests visible technological linkages of a homogenous kind, such as Twitter following relationships) but "are heterogeneous because they bring together different kinds of social and technological elements… into a complex web" (Kling et al., 2003, p. 52). In other words, in order to map the constellation of human and non-human actors at work around a given focus (in Kling at al.'s research, an electronic journal or forum, but in my own a hyperlocal blog) traditional network methodologies – which involve plotting defined types of linkage between a homogeneous or mono-modal set of nodes such as human actors or webpages – must be expanded to allow for the inclusion of heterogeneous and multi-modal nodes and links. This heterogeneity creates issues, as there is no pre-definition of the types of associations that count as links and the types of actors that count as nodes. As Kling et al. note "a significant problem faced by socio-technical analysts is that of how to figure out what belongs in the network and what does not" (Kling et al., 2003, p. 54). An amount of subjective judgement is required, depending on the scope of the research. Kling et al. characterize models such as that reproduced in figure 7.1 as metaphoric diagrams helping to communicate an analysis but *not* exhaustive models of reality, as they cannot represent the social protocols at work within links nor every layer of technological variable within each node. The position that the network is to some degree a metaphor is upheld in the adoption of STIN methodology for the methodology presented in this chapter. There is an added level to the metaphor here, though, in that the STIN built around Brockley Central is *analysed* for its network properties in the same way the Twitter network was in chapter 5, while Kling et al.'s is presented only as a simple visual model. Given that this is not a 'pure' network of mono-modal nodes and edges, like a Twitter following network is, these properties are taken largely as a metaphorical basis on which to discuss the communicative affordances of the places, people, and technologies that are actors within the hyperlocal communication ecology. Furthermore, Kling et al.'s STINs pay no attention to places as actors (they include "Research Libraries" as an actor, but as they are grouped in a way that means they cannot be pinpointed in space it must be assumed they see these libraries as

organisations rather than places), and exclude space, in terms of both scale and location, from their analysis. While scale was used as a factor in the model presented in the previous chapter, the analysis here re-introduces location as a constituent of the STIN.

Nonetheless there are aspects of Kling et al.'s work that form a strong methodological precedent here, both conceptually and in practical terms. Firstly, that their work takes an ecological approach, echoed in Ball-Rokeach et al.'s communication ecology framework for neighbourhood storytelling. So the communication setting that forms that starting point for research cannot be taken as an enclosed and self-sustaining system but one that is embedded in an ecology of other networks and settings. As has become clear in the process of this research, it is impossible to draw a line around the hyperlocal blog and analyse its effects in a neighbourhood, as it always dovetails with other forms of communication. For this reason, STIN analysis is concerned with a broad picture rather than the analysis of the content or the social dynamics *within* each communication setting. Secondly, that actors or "interactors" within the network are identified through judgment, based on observation of the population of a system. In Kling et al.'s research this was direct observation of scholarly communication forums by the researchers, whereas here the reports of interviewees embedded in daily use of Brockley Central and its communication ecology form the basis for my own judgment of whom and what constitute actors to be included. Kling et al. recommend, as part of this, identifying communication resources that are known to be used by the actors identified through observation, even if they are not directly observed. For example, in this research, where a business is mentioned but not its Twitter profile, the Twitter profile is included as a separate actor, where it is known that this business also uses Twitter. It is worth recalling once more Latour's notion of what constitutes an actor. Twitter is *not* a passive medium carrying sociality directly between individuals. It *is*, in the stable form of the Twitter profile projecting an individual or an organization such as a business into the mediated public realm, an active piece of technology that itself associates with human actors and sets up an indirect relation between them. Twitter itself is an actor - a public company headquartered in San Francisco – consisting of many other actors both human – its employees for example – and non-human - the distributed network of server farms that store the data held in and messages posted by individual profiles, the cables that transfer this data around the globe, the transmitting towers that turn it into GSM signals, the mobile phones that receive these signals, and so on. All these actors are part of a wider infrastructure not visible within the hyperlocal lens here. Clearly, for different questions of communication at a national or global scale these could all become relevant actors, and in close-up questions with different foci

their own individual components – company employees, mobile phone components and so on – could appear as at issue. As Kling et al. advise, there will always need to be an individual judgment as to the limit and the granularity of identifying actors, and the subjectivity of this judgment cannot be got away from. What is presented here, then, is a representation of Brockley's communication infrastructure as seen through two layers of subjectivity – that of the interviewees and of myself as a researcher. As argued previously though it is within human subjectivity that forms of media and forms of space combine and influence one another, through modes of use, so for the research question in this study the first-hand subjective view *is* the reality. Any claim for objectivity would be suspect from the outset.

7.4. Building a socio-technical interaction network around Brockley Central

Kling et al.'s STINs are notional schema based on simplified categories of actors such as "research libraries", "other journals" and "readers", helpful for their stated aim of aiding a conceptual analysis of the communication ecology of an online communication setting based in actor-network theory. Though valuable as a starting point, their methodology has only gone so far. For example, it does not highlight the distinct affordance different actors may have depending on their network of associations, and particularly location, both of which are valuable in thinking about hyperlocal media. For example, as shown in the previous chapter, two hyperlocal blogs may have very different relationships to the rest of the communication ecology depending on their scale and the means by which the stories published on them are collected.

Type	Count
Media	79
Third place	47
Individual	37
Issue	25
Group	17
Public place	14
Event	9
Education	6

Table 7.1: Number of each type of node in the interview data STIN

A graph was built in the network software Gephi (Bastian et al., 2009) representing each interviewee as an individual node. Referring to each interview transcript,

whenever what can be interpreted as a communicative or associative act was described, the actor being communicated or associated with was plotted as a new node and linked to the interviewee's node with an outgoing connection from the interviewee to the other actor. If the actor mentioned already existed in the network, then a directed link was created out from the interviewee node to that actor. In network analysis, nodes show as hubs for information flow when they have a large number of incoming links. It is for this reason that connections were drawn as outgoing from interviewees to the actors they mention. Although hypothetically information passes *from* a media source, for example, to an individual, the individual makes an association *with* or *to* the media source to get this information, so the directionality of links in the network is conceived of in this way. The only actors created were those mentioned by the interviewees, but some links that were not directly mentioned were added. For example, where a business and its Twitter profile were both mentioned separately these were created as individual actors, but a link was created from the Twitter profile to the business with the same logic as mentioned previously: information is passed *from* the business as an organization of people operating in a physical space *to* the Twitter profile, from where it can pass to other nodes. In all 234 actors, including the interviewees, were identified. Table 7.1 shows the count for each of the 8 types post-rationally chosen to categorise the nodes. The resulting network graph contains these 234 nodes and 553 directed edges, and can be analysed in similar ways to the Twitter network in chapter 4, but with more of a focus on the value of individual actors than global characteristics of the graph. These are defined as follows:

- Total degree
    - The total number of incoming and outgoing edges
- In-degree
    - The number of incoming edges
- Betweenness centrality
    - "Interactions between two non-adjacent actors might depend on the other actors in the set of actors, especially actors that lie on the path between the two…the one between the others has some control over paths in the graph" (Wasserman and Faust, 1995, p. 188)
- Closeness centrality
    - "focuses on how close an actor is to all the other actors in the set of actors. The idea is that an actor is central if it can quickly interact with all others. In the context of a communication relation, such actors need not rely on other actors for the relaying of information" (Wasserman and Faust, 1995, p. 183).

- Authority (drawn from HITS[33] web page network analysis)
  - "highly-referenced page" (Kleinberg et al., 1998, p. 2)
- Hub value (drawn from HITS web page network analysis)
  - "serve as strong central points from which authority is "conferred" on relevant pages" (Kleinberg et al., 1998, p. 2)

These measures describe the relative value of actors in this dataset in terms of their role in the communication ecology. So, a node with a low betweenness value could be removed with little effect on associations throughout the network, whereas the removal of a high betweenness value node would make it significantly harder for isolated nodes to become visible to one another, and for information to circulate from one part of the network to another. According to Wasserman and Faust (1995, pp. 173–174) nodes with high in-degrees are *prestigious* (analogous to what Kleinberg et al. refer to as "authorities") and are visible to the rest of the network, whereas others that are highly active in creating outgoing associations but largely invisible to others are *prominent* (analogous to Kleinberg et al.'s "authority" measure). However, as explained, the measures can only truly be thought of as metaphors for communication practices. Given this metaphorical approach, a visual analysis of the data is more appropriate than statistical comparison of network values. First, the socio-technical interaction network built from the interview data is shown with the size and colour of the nodes used to represent various different measures, with similar visual conventions to the Twitter network presented in chapter 4. In what follows, network measures are shown and discussed in relation to the kinds of local communication practices described anecdotally by the interviewees.

7.5. Results: practices and characteristics of the hyperlocal STIN

7.5.1. Betweenness: the ability to translate between network modes

Figure 7.2 shows a comparison of in-degree values and betweenness centrality values in the STIN. Betweenness, to recall, measures the degree to which each node is on pathways through the graph, and represents its importance in transferring information from one point to another. It is mathematically similar to the measure of 'choice' in spatial analysis, which represents for each segment of a street network the number of routes from every point in a city to every other point that segment lies on, or its potential for "through-movement" (Hillier and Vaughan, 2007). High choice streets have a significant impact on the whole system: removing one alters many routes across the

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[33] Hypertext Induced Topic Selection

city and reduces the potential for movement throughout. Similarly, removing high betweenness nodes from a system reduces the potential for information to spread through the network. In the STIN created here, Brockley Central has relatively high betweenness. Clearly most interviewees 'download' information from it, meaning it has many incoming links. It also links out to issues that interviewees recalled reading about there – the future of an empty shop, the regeneration of Brockley Cross. In this sense it lies on information pathways *from* issues *to* individuals through a discursive framing of locations as issues, that does not take place in simple physical encounter with material spaces.
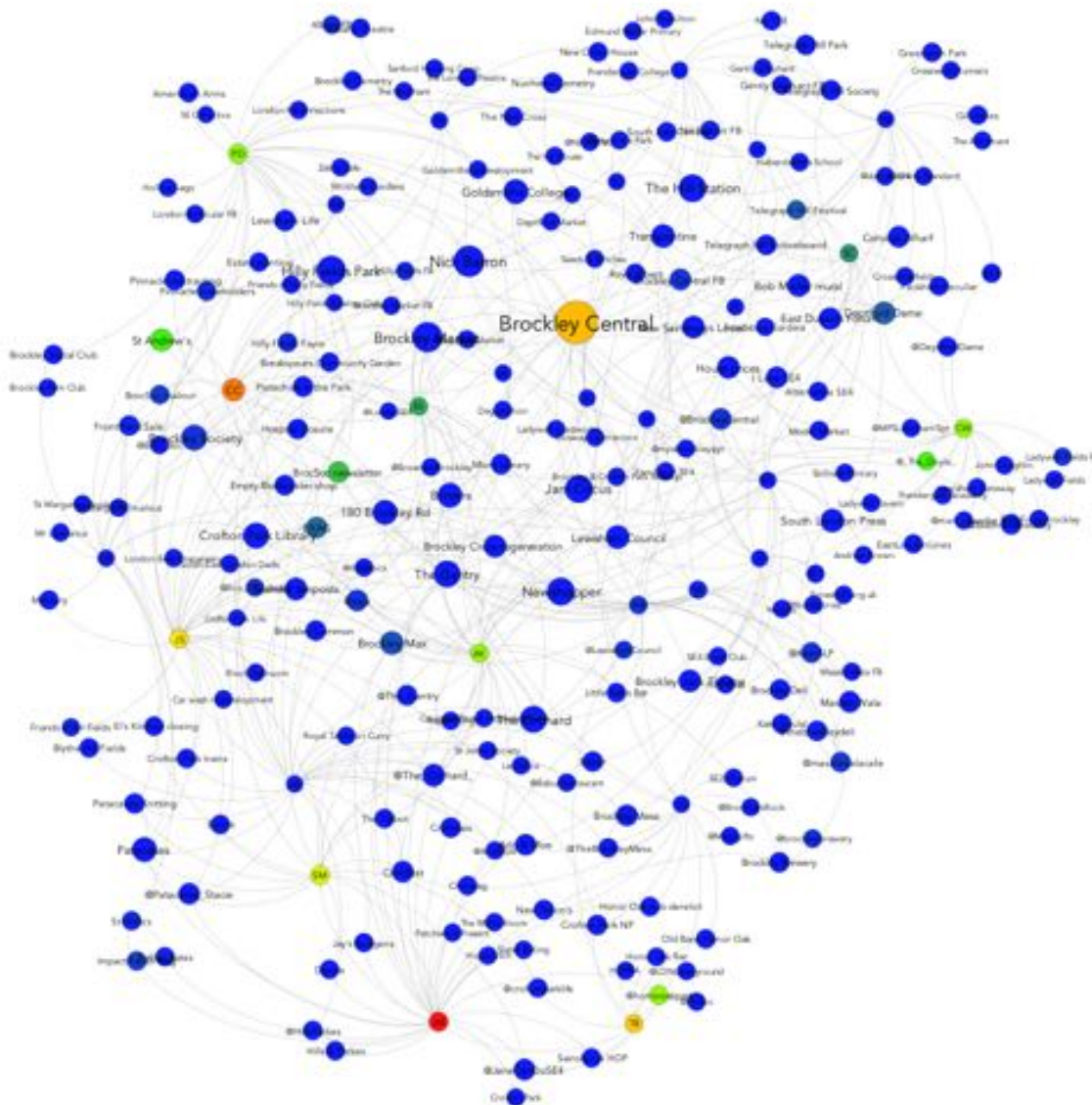
Figure 7.2: Colour = betweenness centrality, size = in-degree. Shows high betweenness values for several interviewees, represented by nodes with initials, considering their low degree values.
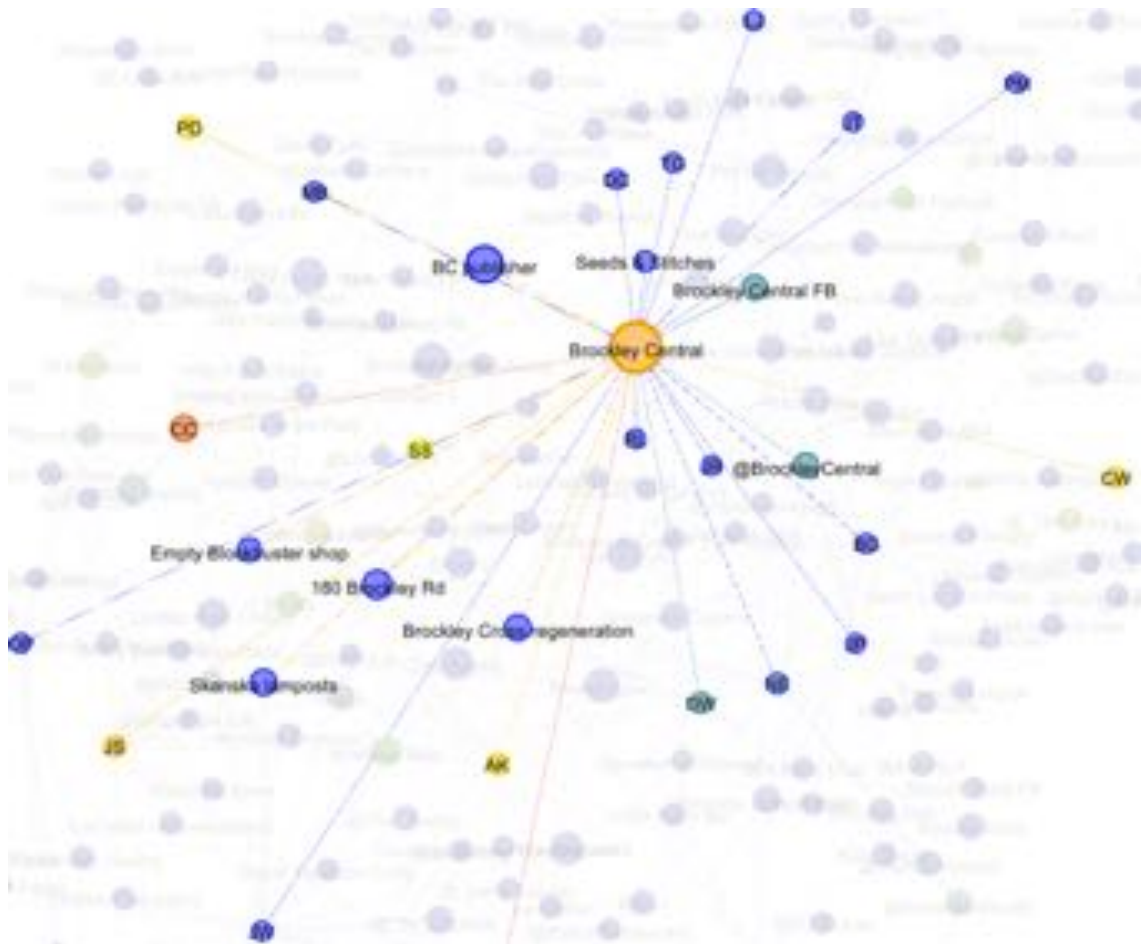
Figure 7.3: Highlighting Brockley Central blog's links in the STIN. Colour = betweenness centrality, size = in-degree, colour of edge is same as source node. Individual come to it for information, but information comes to it from issues and from the individual that publishes it.

However, Brockley Central is not the most important node for information transfer in this particular network. Several of the interviewees - JM, CC, TR – have higher betweenness values. Respectively, these people are a blogger who collects information directly face-to-face, the chair of the local conservation society, and the person behind the Twitter account @honoroakpark. In literal terms, we see this result because these interviewees cited one another as direct sources of information and therefore their nodes link directly to one another, and also because there are media sources mentioned by other interviewees – a blog, a Twitter profile, a newsletter – that rely on the 'uploading' done by these individuals. Expanding out to a more metaphorical interpretation, this strikingly highlights the importance of the network of direct links between storytellers, described in section 7.4.4, in underpinning the hyperlocal communication ecology. In fact, this STIN analysis suggests these individual people are more effective in transferring information than the local newspapers Newshopper and South London Press, and Twitter and Facebook accounts representing local groups. This will be in part because of the nature of the interviewing process and how it was allowed to follow links from one person to another.

Betweenness is also, metaphorically, way to think about an important qualitative difference between the way in which a human works as an actor for information transfer, and a source of media – a Twitter account, Facebook group or newspaper – does. Human actors can collect information from various sources – both mediated and face-to-face – and translate them into other communication settings. For example, the publisher of the blog for Crofton Park, who has been referred to previously, discussed how she collects news herself by visiting businesses in her focus area and asking them directly for information on upcoming events, or issues affecting the location of their business: "*constantly gleaning information by my general use of these places.*" She also reported having focused one-to-one contact with many of the people running these businesses via email and direct messaging on Twitter. As a human actor, she translates this private communication into public material on her blog. The blog as an actor itself cannot transfer information through the network from unmediated or private interpersonal communication to public online broadcast. A human actor must bridge the technical divide between these forms of communication – not just from one part of the network to another but from one network mode (human) to another (technical). Indeed, not only does she collect stories from business owners to publish on her blog, but because of her self-advertised role as a storyteller with a "passion" (her word) for the area, she reported that other key figures not immediately present in the space of the neighbourhood (the owner of a small chain of pubs for example) send her information by email that on her rounds of the area she then feeds back to business-owners by word of mouth. The business owner interviewed described other ways that this particular figure bridged mediated communication and unmediated physical encounter: *"She's got quite into Twitter, she'll be like 'do you know @so&so'* [i.e. identifying someone as the human actor linked to a particular Twitter profile name], *she'll tell me, so then when I see them I'm like that's who it is. It's like that sometimes if you can't see obviously from their picture*" [8]. A similar phenomenon is reflected by the publisher of the Honor Oak Park Twitter account. She has consciously established herself as a communicative conduit between shop owners on the parade. *"I know the shop owners. That's another thing we do, is try to get all the shop owners to engage with each other"* [10]. Again, the human actor is a bridge between other human actors – shopkeepers – and the technical setting of Twitter – through which she encourages he to connect with one another for purpose of creating a mediated community of businesses that can promote one another. The interviewee described how business-owners raise contentious issues, around parking for example, during her regular use of their shops, and how she had established a Google group that she encouraged them to use to discuss these issues. Other key nodes in this measure are St Andrew's Church, the Brockley Cross Action Group organization, and the events Telegraph Hill Festival

and Brockley Max. Taken as actors, all these could be thought of as entities capable of multi-modal communication: events bring together people, generate media content and require organizational structures; community organizations and the church translate between issues, media and people.

7.5.2. Authority: the ability to produce reality

Figure 7.4 compares the in-degree (total number of incoming links) with the authority value for each node. As authority is essentially a measure of the number of times a source is referenced in an informational network it correlates with in-degree, meaning that in the visual analysis the smallest nodes have the coldest colours and vice versa. In re-framing in-degree (basically how many times an actor was mentioned as a source in interviews) as the network measure of *authority*, another interesting metaphorical potential opens up. Kleinberg's original algorithm for determining authoritative pages in the worldwide web described a mutually reinforcing relationship between authorities and hubs. That is to say that a page referenced by a high number of isolated pages without their own links to other authorities in the network could have a high in-degree without a high authority value, while authorities are pointed to by nodes that also point to other authorities (see figure 7.4). In other words "a good hub points to many good authorities; a good authority is pointed to by many good hubs" (Kleinberg et al., 1998). This can be thought of in terms of the network of citations in a scholarly field:[34] a good quality literature review paper should point to many authoritative papers, and in doing so becomes a good hub that re-affirms the authority of those papers. A poor-quality literature review paper might refer to only one or two key papers and miss many others, giving it low value as a hub and making it a poor source for anyone wanting to know what is authoritative in a given field. Given the "reinforcing relationship" between hubs and authorities, the notion of academic 'truth' could be explained as a network position, created and reinforced through the relationship of citing to cited papers that, rather than an inherent truth-value. The network value of authority confers onto a paper the right to produce reality. This may seem distant from Brockley's communication ecology, but it can in fact be translated into the network here.

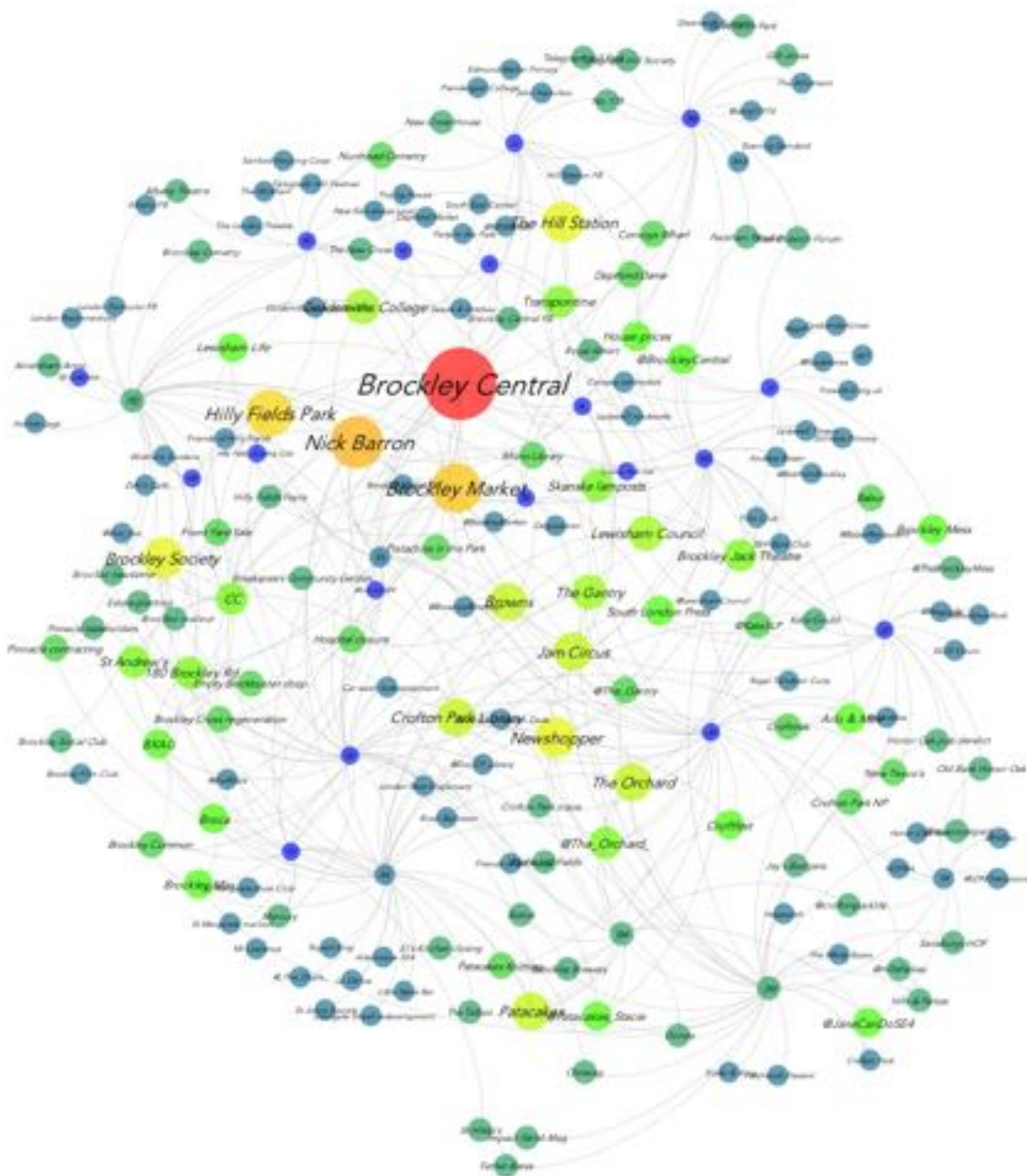[34] My interpretation, not Kleinberg's

Figure 7.4: Size represents in-degree from low = small to high = large; colour represents authority value from low = blue to high = red
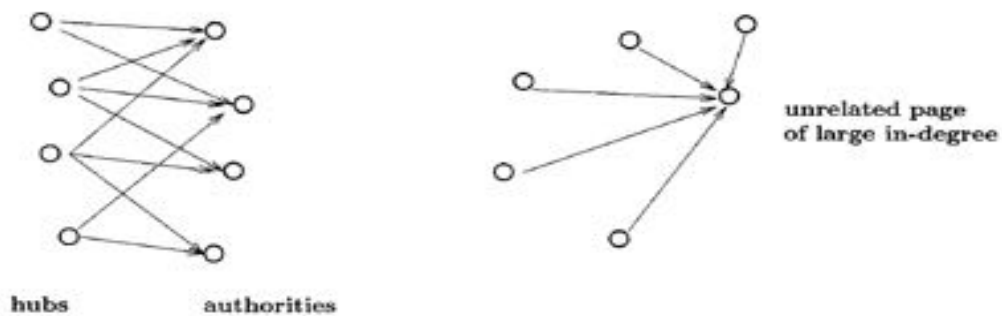

Figure 7.5: Densely connected, mutually reinforcing hubs and authorities (left) vs high in-degree, low authority pages (right) (reproduced from Kleinberg, 1999, p. 611)

In this STIN, Brockley Central is the dominant authority. This is entirely unsurprising given the way the research interviews were advertised and framed. Even though no-one was specifically prompted to mention Brockley Central, over 50% of respondents came via the blog, weighting it towards a Brockley Central audience. This is not a problem, as the aim is not to create statistics on media use in Brockley but to explore how to place the blog in relation to its spatio-technical surroundings. In chapter 6 it was argued that for those who read the blog there is an imagined hyperlocal public consisting of "everyone". Brockley Central is an authority *because it is a source of information* for most people in this network, and it is a source of information for most people in this network *because it is an authority*. To revisit a quote from an interviewee *"we know [our neighbours] read it because everybody does" [1].* If everybody reads it, then it is a representation of what Brockley *is*, because what Brockley *is*, is what everybody *imagines it to be* through the way it is framed on Brockley Central. Media creates a reality *by being read.* This reality, in the case of hyperlocal media, is not only in the minds of readers. Because hyperlocal media refers to a space that is immediately to hand, the reality it creates for readers manifests in a particular orientation to that space, perhaps shifting patterns of movement such as the use of the high street for an interviewee that previously felt disconnected from it, and setting up encounters in the third spaces it recommends where the imagined reality of everybody reading it materialises as physical encounters with actual individuals that do. That is not to say this reality is unproblematic. It was rarely hinted at in interviews but one resident, who worked in academic research himself, explicitly raised the exclusivity of this feedback loop between space and mediation: *"I think it does change certain people's idea of Brockley, but even when I look at the comments I'm aware that it is quite a narrow demographic of people. [BC's publisher] has an agenda that he wants Brockley to gentrify in a certain way. And there's often things around property prices on there. And lots of people have an investment in that. And I think lots of things get ignored… So there's that deli, but opposite that deli there's that shop which I'm so sure is just a drug dealer's place, because it's never open, and if it is open there's that gate, and it's at funny times. And there's a lot of focusing on a deli, or a café like this [where the interview is taking place], but not looking at what else is going on" [18].*

Figure 7.6: Interview data as STIN with Brockley Central blog, @brockleycentral, and Brockley Central FB (Facebook page) removed. Colour = authority, size = in-degree

Figure 7.7: Connections to Hilly Fields nodes in the STIN, with edges showing source node colour

As such a dominant authority in this dataset, Brockley Central hides other details. Removing its node (see figure 7.6) gives a clearer picture of what else could be described as authoritative. The human actors that are key to informational transfer had some of the lowest values in this regard. No individual people make the top 20 nodes in terms of authority other than the publisher of Brockley Central, who is regularly mentioned by name in relation to the blog, most probably because of his use of his own name for his profile on Twitter and in blog comments. Otherwise, businesses, media, and public places were the most "authoritative" actors. One of the most prominent is Hilly Fields Park, which is the largest green space in Brockley with its own Facebook page, a community organisation that works towards its upkeep, a bowling club, and plays host to Brockley's yearly summer fayre (see figure 7.7). It is implicated in a range of forms of communication and gathering that constitute public associational life. So if these events and groups themselves are well-linked actors that link to Hilly Fields Park by making use of it, they confer authority on it as a place for the representation of local life. A comparison of this authoritativeness over what *represents* and *does* the hyperlocal public, between the roles of authorities and hubs in local information transfer, is something like Hillier's comparison of the symbolic and instrumental urban axis (Hillier, 2004, p. 189). The symbolic axis favours a representation of society by literally focusing views onto a symbolic artefact such as a demonstrative building façade or monument, with movement through the city as a secondary or possibly non-existent function. This is where the performances of ceremonial public life take place – parades, inaugurations and so on – for an audience of onlookers that is a public in the way a theatre audience is, becoming an emblem of the public in the process. The instrumental axis slips through the city, *passing* rather than *focusing on* buildings, and favours the necessary comings and goings of non-representational activities like commerce and travel. Instrumental space may be key to the workings of public life – we need instrumental routes through the city to get us to the destinations of public gathering – but it does not become a representation of publicness in the same way: its inhabitants are a crowd of strangers going about their own business rather than a public witnessing a shared spectacle. Storytellers fuel the hyperlocal communication ecology by doing the labour of informational gathering, translation, and publishing, but much of this happens in constrained, one-to-one, and unmediated settings that are not visible to broader audience. Though a storyteller like Brockley Central's publisher was known by name by some interviewees, storytellers themselves are not representational figures as much as the businesses or media channels they speak through. They facilitate the movement of information but they do not perform that information to a

public. In the neighbourhood it is the non-human actors of media and places that people witness side by side and in doing so become a public.

7.5.3. The overlapping of stories and communication infrastructure

It has been argued throughout that businesses are a key aspect of the hyperlocal communication infrastructure, as well as the topic of much storytelling. By recombining the issue mapping from chapter 5 with locations referred to in the socio-technical interaction network as sources of information, it is possible to visualise the overlapping of these stories and the infrastructure they are shared through. Jam Circus, Brockley Market, The Orchard, and The Gantry were all businesses referred to not just in terms of consumption preferences but also as very social third spaces. *"I think Brockley Market's another place where you tend to meet people. I think Brown's and Brockley Market are the main places" [6]*. Another interviewee described making acquaintances at The Gantry over discussion of the local area [3], and another referred to a Film Club that takes place at Jam Circus [5] (listed on the STIN as an event). So whilst Brockley Central is the focus for the imaginary of what constitutes a shared public reality, these places are where the public is seen to materialize as social co-presence in space. This is what Warner calls a "theatrical public", "witnessing itself in visible space". Warner defines the theatrical public in distinction to "the kind of public that comes into being only in relation to texts and their circulation" (Warner, 2002, p. 66). Hyperlocal media, though, requires a synthesis of the theatrical and the virtual, or text-based, public. When the circulation of texts takes place at a hyperlocal scale concurrent with the realm within which a public can witness itself, the two overlap and form part of the same infrastructure of publicness. As mentioned previously, national publics do not have spaces within which to witness themselves apart from in exceptional occasions when congregation happens at a large enough scale that it expands beyond what is usually considered a single space of co-presence. For example, when the national campaign against the 2003 invasion of Iraq congregated in London on Saturday 15th February 2003, numbers of demonstrators were estimated at between 0.75 – 2 million, making it the largest demonstration in UK history (BBC News, 2003). In this instance, a large part of central London was transformed into the single space of a theatrical public. As has been seen at a relatively micro-scale here, the reliance on mediation increases with the scale of the public for an issue or around a text. National publics, or *the* national public, are predicated almost entirely on the circulation of issues and debate through TV, the internet, newspapers, and so on. Where spaces or buildings play a role in the national imaginary they do so *through* media, as emblems or logos that represent the nation, rather than places to gather. Spaces play a much more direct

role in the communication ecology of the *hyperlocal* public, but still not one that is entirely unmediated.
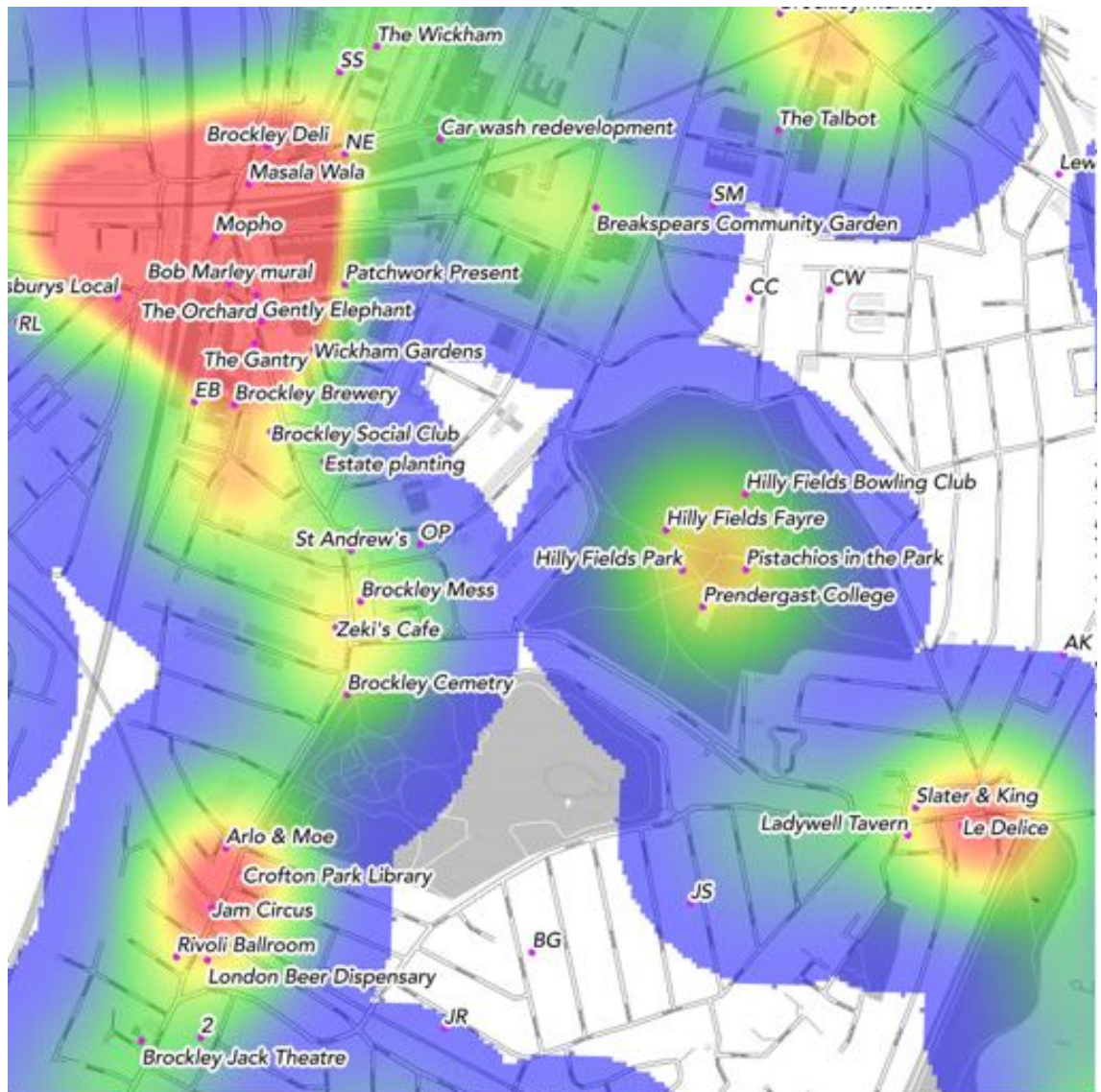
Figure 7.8: Heatmap of locations framed in blog (June 2013 – June 2015) with locations from STIN

Original blog post

Time is a flat circle - now with Instagram!

Paul Doyle: There is life after death. Of that, I am sure. But I'm also pretty sure dead people no longer need their stuff.
- Pain and Gain

Don't talk to me about sacrifice, I'm missing Ant-Man for this

Nearly a century ago, towards the end of The Great War, the people of Brockley, weary from bloodshed and sacrifice, came together on the slopes of Hilly Fields for a group photograph that would capture the character and resilience of their community forever. Today, between 2-3pm, the Brockley Society is inviting us all to recreate this moment in 2015.

So let's show those old piles of dust and bone who's in charge now - and how much better the vitamin-enriched, artisan-fed, digitally-filtered population of today looks. Our forebears probably never even heard of type II diabetes!

Meet on the slopes next to the cricket pitch from 2pm today. Details here.

Recreation of photo

New blog post re-framing recreation

Them & Us

BrocSoc have released the official Then & Now group photograph, taken on Hilly Fields as a snapshot of local life (almost) 100 years after the last one was taken.

Historically interesting rather than demographically representative, the photo serves to document Brockley residents' enduring love of group photos.

Available to buy now on all good civic society websites.

Figure 7.9: A story on Brockley Central, leading to a congregation in space, leading to a mediation of that congregation as another story

This can be demonstrated by combining the distribution of locations framed on Brockley Central with the pinpoint locations of spatial entities in the STIN (residential addresses of interviewees, businesses, and location-specific planning issues). Figure 7.8, then, shows Brockley Central's region in practice (the heat map) and pinpoint locations referred to by interviewees as issues, sources of information, and spaces for storytelling, with the distribution of both clearly related. This does not particularly prove anything in itself, but serves as a detailed illustration of the idea that the public is concentrated spatially both in terms of the distribution of places framed in stories, and in terms of the spaces within which those stories have the possibility of being told in public. Hilly Fields, for example, is a focus for storytelling, and Jam Circus and The Orchard are also in the parts of Brockley where the performance of place through storytelling is most concentrated. These parts of Brockley are where the most concentrated symbolic framing of the public in stories told on Brockley Central about the shared life that third and public places represent, overlaps with the actual affordance for associations in a physical communication setting. Third and public spaces, then, are both strongly virtually *emblematic of* (in the form of stories) and strongly materially *implicated in* (as spaces for storytelling) public life. The chair of the conservation society described the representational quality of Hilly Fields, via its implication in events. "*Never mind blogs and Twitter. Things like the [Hilly Fields] fayre, which has been going for 40 years. If you ask people, they say yes, the fayre... I spoke to a woman and said 'do you know about the fayre?' and she said 'of course I do!' I said 'why, do you have a stall?' and she said 'no, I'm a Brockleyite!' And I loved the way she said it because the fayre and Brockley are synonymous"* [21]. Whilst this older interviewee self-identified as fairly untechnical in her communication practices, it is clear that this synonymy derives in part from the regular framing of this space in the blog's stories, demonstrated by the concentration of the region of practice around Hilly Fields in figure 7.8. So as places get framed as stories, they get performed as places to do storytelling. The hyperlocal public sphere of mediated circulation arguably intensifies the public character of the spaces it discusses by setting them up as pieces of communication infrastructure, and by providing the informational impetus around which encounters in those spaces can become moments of storytelling. Figure 6.9 shows three mediations that neatly illustrate this intensification, and the complex interplay of framing, gathering, circulation, and place that needs to be taken into account in a framework of the way media constitutes urban locality. The first mediation is a blog post framing an early 20th century photograph of a crowd gathered in Hilly Fields to promote a plan to recreate the photograph in the same place. The second is the recreation of that photograph, which is also a congregation of the public for the blog post, witnessing itself theatrically and reminding itself that there are others out there

reading the same texts. The third is the re-mediation of this gathering as a new issue to be circulated via Brockley Central and its surrounding ecology, demonstrating that a virtual Brockley Central public can gather in space to a new public for that framing. This example, described in this way, encapsulates the core concern of this work for developing a rich and nuanced account of the interplay of hyperlocal media, publics, and spatial territory.

7.6. Discussion

As a tool for thinking with, the socio-technical interaction network, with the addition of both specific urban spaces (such as local parks and cafés) and issues that pertain to places (such as property developments or changes to local businesses), allows for a conceptual approach and a research methodology for urban communication that is non-dualist. That is, space is not relegated to a backdrop for a network of communication, and mediated communication is not seen as separate to space. Rather than defining actors in an ecology of hyperlocal communications by their ontology – whether they are places, people, technologies, and so on – network analysis of a set of socio-technical interactions highlights the affordance of different actors for different communicative roles: the transference and translation of information between different modes and parts of the network; the conferring of authority on specific nodes; the authority to perform a collectively-produced reality. These are all valuable ways to think about things like businesses and their social media profiles, individual storytellers, public places, and blogs, that eradicate the need for the situation under observation to be stratified into different layers of the 'social', the 'technical', and the 'physical'. This eradication has been convincingly demonstrated by Latour and his followers, but with very little attention to space. The socio-technical interaction networks developed by Kling et al. are assemblages of technologies and organisations. In architectural discourse, scholars such as Albena Yaneva (2013) have adopted actor-network theory to build "controversy maps" of specific built environment issues (for example the controversial and over-budget design for a new Welsh National Opera House, in Yaneva's work), but she also limits non-human actors to media sources, institutions, technologies, and other controversies. Based on this synthesis of actor-network theory, as a framework for the way non-human actors constitute networks of non-place specific communication, and communication infrastructure theory, as a framework for the way places, people and media co-constitute a place-specific communication ecology, I would argue that there is strong potential for future work that takes multi-modal network and geographical communication mapping as a starting point for data collection, where here it has been a reflection on a set of techniques and data developed heuristically.

Recombining this actor-network approach with a geographical visualisation, that does not take places simply as actors but also as a set of locational relationships, also helps to illustrate the idea that it is not just the content of media but the shape of its infrastructures that helps define what place is. In chapter 2, it was shown that postal networks help constitute the idea of the nation, through the development of a national communication infrastructure concentrated within a specific territory, regardless of the content of the letters it carried from place to place. The notion of *storytelling* has been used throughout this work, and can be thought of as a general term describing the sharing of information as well as a specific theoretical framework for hyperlocal media. Specifically, though, it suggests that neither does the content of hyperlocal media need to be instrumental in affording people agency over the built environment in the way posited by the 'smart citizen' ideology described in section 2.8, nor does its truth value need to be of primary concern. What matters about storytelling, in terms of understanding media as a constituent of the socio-spatial phenomenon of place, is firstly the simple fact that people tell stories to one another through various communication practices, but also that this storytelling happens in *particular places* or through networks *constrained by space* in particular ways, that help people to imagine the region contained by that distribution of spaces and places as a coherent socio-cultural realm defined by those stories. This extends Ball-Rokeach et al.'s adage that stories enable the imaginary of "us in this geographical space" (cited previously) by suggesting that the distribution of spaces for storytelling also helps define what that geographical space is, amplifying the spatial aspect of this theory. The suggestion here is that the physical places where storytelling happens and the physical manifestation of online profiles that tell stories (i.e. businesses), as evidenced by their identification by interviewees as sources of information, are coincident with the locations framed in stories on Brockley Central, as evidenced by issue mapping. The places where storytelling happens are the hyperlocal communication infrastructure, and the distribution of this infrastructure, like the distribution of the locations it helps circulate stories about, work together to form the perception of where the public is in Brockley. This chapter has been the demonstration of an approach to building a map of a communication ecology as network of social, technical, and spatial associations, and reading characteristics from that network to try to build the diverse actors of the hyperlocal public sphere into a single account. It has little in the way of precedent but draws together techniques from a wide gamut of scholarly work, and in doing so undoubtedly contains assumptions, leaps of logic, and technical failures, that would be unforgivable from a pure network science, or anthropological, or geographical, or society and technology studies, point of view. How, though, are we to get to grips with

urban communication if we do not find the common ground between all these things? Hopefully this is a platform for further research that more solidly builds on the combination of network, spatial, and anecdotal points of view.

8. Conclusion: concepts and methods for placing urban media

8.1. Discussion

What then, is hyperlocal media, *where* is it, and *who* are its publics? This discussion section 'zooms' back out from the case study to recontextualize the concepts explored throughout the methodological sections in broader theoretical and historical interpretations of the 'local', 'publics', 'networks', and 'physical and virtual'.

8.1.1. Conceptualizing the Local

The idea of hyperlocal media as a virtual layer 'on top' of local space is a conceptual abstract that simply does not explain its interwoven communication practices and constant mediating and unmediating. When we consider that "media lift us out of time by providing a symbolic world that can store and process data" (Peters, 2015, p. 50) and that "we must use movement, which occupies time, to overcome space" (Hillier, 2004, p. 185) we can see how important media is in producing place. From an individual perspective, the Euclidean region of space occupied by place cannot be perceived "synchronously" or "in a single space-time frame" (ibid.). It is a collection of spaces that transcend the possibility for holistic apprehension. How, then, do we know where we are, not in terms of Euclidean location but culturally, in terms of place? We know because of the encoding of the media of place-names in the media of maps, street signs, *and hyperlocal news*. Though a synchronous mental map of a place might be built up through long-term use, and an extremely rich one at that, the bird's eye view of a media map (be it on paper or screen) allows us to see a network of spaces, that are asynchronous from an immediate point of view, represented and mediated as a spatial whole in a single moment by abstracting from reality. The map tells us little about the socio-cultural life of that place – what it is actually like. Again, we could come to know this in the richest detail by long term intensive use of a neighbourhood. Hyperlocal media offers a kind of socio-cultural bird's eye view, though. It speeds this process by abstracting from social reality. It does not make everyone visible to everyone else, but it allows mediated representations of key elements of place such as issues, third places, and spokespeople, to become indicators or symbols of a more complex social world, in just the way that key spatial markers stand in for a more complex material reality on a map. As has been suggested here, access to that socio-cultural map can re-orient sense of place or expand it beyond regular physical use of space. This is not unique to hyperlocal media but is a function of all framings of place in visual, textual, discursive forms. The digitization of this process though has allowed, economically and pragmatically, the intensification of this symbolic world at an increasingly local scale. Whilst the making of this symbolic world in digital media does

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not necessarily connect everyone to each other in direct communication, it does offer the possibility for an increasing number of storytellers to populate it with symbols of place. It has not, though, evened it out: we have seen that the symbols Brockley Central frames respond to spatial conditions, intensifying Brockley's symbolic world along existing patterns of accessibility and cultural or commercial activity. The place that Brockley Central provides a map to, then, has perceptual concentration and fades into surrounding areas where non-controversial, parochial, semi-private realms of residential streets are less regularly framed as symbols of Brockley.

Whilst hyperlocal media may have created the possibility for smaller and more geographically specialised symbolic worlds, though, it has also expanded the possible region of the public for a place. Issues in and about Brockley have an audience across London and stories told there circulate across the city. To a degree this has long been the case, as national and regional news broadcasters (both television and print) tell stories of localities from time to time. The instantaneousness and constant flow of online communication intensifies rather than invents this process. Several of the respondents interviewed in this research referred, whether in a positive or negative light, to the way that Brockley Central performs Brockley to a London-wide audience: competing in the urban marketplace for a mobile middle class with time and disposable income to invest in its market, independent restaurants and cafes, and indeed property. This external performance and the visitors and new residents it is perceived to draw can engender pride or protectiveness depending on who you ask. Either way, analogies to nationalism and its imaginaries are not far-fetched. As Benedict Anderson points out "the members of even the smallest nation will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (Anderson, 1983, p. 6). The same is the case in Brockley: despite being too large for a purely spatial togetherness, a cohesive "we" or "us" is regularly invoked in imaginaries of shared hopes for the area and its improvement, or in a more possessive "ours" that conceives of a stable community threatened by change from 'outside' (in the form of chain supermarkets that are not *of* place). Again, all this was possible without the existence of a hyperlocal blog or Twitter profile, but even without the benefit of a pre-internet sample for comparison we can hazard a judgement that the local "we" is reinforced as an imaginary by the constant and concentrated symbolism of place in hyperlocal media.

Urbanists, architects, and planners, are tasked with building the *local* in material form – creating the affordance for involvement and belonging through spatial design. I argue that they must also take account of the communicative public in their understanding of

the mental and cultural constructs of neighbourhood and locality: not just as a setting to discuss a *pre-existing* locality but as a place to reinforce, or maybe even, where new urban districts are being built from scratch, *create* what is understood to be the locus of place. Texts are not a distraction from or purely a mediation of pre-existing material realities, but are the processing machines that help transform space into place. They store memory, transmit it across the divides of private and domestic space, and triangulate between strangers. All territories are imagined as coherent through a set of texts. Borders, after all, are conceived of virtually, even when they have been drawn translated into the material realities of fences and walls or derived from geographical features, and only through constant re-telling can they remain vivid in the minds of subjects who do not encounter them personally on a day to day basis. Why should it be different for a neighbourhood? Before hyperlocal blogging the Domesday book, population censuses, road signs, electoral registers, newspapers, all synchronized places as socio-cultural units. All these are media that translate the virtual reality of coherent place imposed upon incoherent space into framings in which a neighbourhood can be conceived of as a unit. They do not point to an external reality but constantly construct one within themselves. Just as there is no objective value for regional populations, simply a subjective act of choosing where the geographical boundaries of the count lie, there is no coherent 'public opinion' outside of the setting in which an issue is framed, storytellers debate it on behalf of a wider audience, and that audience witnesses themselves witnessing "us" as a collective public. Neither is there an objective definition of what is 'local', only a realm within which familiarity and belonging are felt. Before this happens, there are only individual opinions that are privately held, if at all. In Brockley, for a certain set of individuals, the blog is the setting in which these atomized subjectivities are imagined as an enmeshed objectivity of 'what we (locals) think', and therefore for the assertion that such a thing as the local exists.

8.1.2. Conceptualising Publics

What kind of public sphere is hyperlocal media? The idealized bourgeois public sphere described by Habermas was one in which private subjectivity was overcome in a communication framework where rational discourse was elevated to the primary, orienting individual rational capacities to shared rather than personal knowledge, with the coffee house as the epitome. In reality we know that the public sphere is dominated by a small number of actors that do discourse on behalf of and lead opinion for a general population. A 'national debate' means one happening in all the newspapers, just as a 'local issue' is one made so by a local newspaper or blog. Like the hyperlocal public sphere, the national public sphere is clearly no stranger to gossip and to stories (the latter meant both in terms of the storytelling framework made extensive use of in

this work, as well as the more puerile sense of a newspaper story whose truth value is of secondary importance to its entertainment value). There is a debate about the degree to which such 'non-rational' discourse can be considered a public sphere: according to Warner, gossip about public figures can be public discourse, but "gossip often has both reflexivity ('People are saying...'; 'Everybody knows that...') and timeliness", meaning that it "dissolves the strangerhood essential to public address" (Warner, 2002, p. 79). Self-reflexivity and gossip are fundamental to the way participants in this work engaged with Brockley Central. The spatial shrinking of a public sphere to the scale of a neighbourhood makes strangerhood hard to upkeep for those that upload to the public sphere, just as the internet creates problems of anonymity. Respondents hypothesized on the intentions, characteristics, and biases of the blog's publisher, and observed vocal actors in blog comments making personal digs based on offline inter-subjective knowledge or hiding behind faceless comment profiles. This combination of overly personal *and* overly anonymous put off almost all those interviewed from entering into debate about things like planning applications, that will shape the way the neighbourhood develops. These kinds of things are serious challenges to the notion of a rational hyperlocal public sphere as a setting for political organization and civic action. David Morley's critique of the Habermassian public sphere offers more tempered notion, ideologically, of what communication is *for,* that reflects much better what has been observed in this research. He points to a tendency for a "conventionally Habermassian model of the public sphere… as a place for the rational discussion of public issues… that is based on an unproblematised conception not only of rationality, but also of the class, gender and ethnic composition of the public – and of its 'proper' concerns" (Morley, 2007, p. 225). This conventional model, conversely, sounds the most like the 'activist' or 'smart citizen' imaginary of what communication technology should be for: "something that ought to amplify the abilities of citizens and their communities to determine the conditions of their own existence" (Greenfield, 2013, p. 88). Such an imaginary is borne of a long-standing opposition to a vision of a networked society that is based in a political-military-industrial complex. In the finale of his critique of the "informational city", in which he proposes the dichotomy between the powerful space of flows of the global economic and media elite, and the disempowered space of place of the materially-reliant worker, Castells outlined a vision for "an alternative space of flows on the basis of the space of places" (Castells, 1989, p. 353), that on the surface sounds a lot like a prediction of hyperlocal media. His imaginary of a future for media in the space of places called for the symbolic marking and preservation of local points of recognition, the expression of collective memory, the "definition of communities [by which we should read social collectivities related to place, though the term has been critiqued here] as sub-cultures able to recognize and

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communicate with higher-order cultures" (Castells, 1989, p. 351), and spatial foci of information that enable "the connection between production and reproduction" (ibid., p. 353). Re-framing these ideas through the terms developed in this research, he essentially predicted the use of the internet to create a world of symbols rooted in hyperlocality, in which national or regional stories can be reframed in hyperlocal terms, and where the producers of such stories can be pointed to and touched in space in the shape of local businesses. Castells goes on, though, to instrumentalise and politicise the value of such a place-based space of flows in exactly the conventional model of communication criticised by Morley: he calls for communication to allow the return of a local state through radical devolution, and a network of local decision-making. Again, it is not that technology cannot be involved in such political ideals, but my own interpretation based in the observations of this research follows Morley's defence of "pointless chatter" (which he made in relation to mobile phones, but the concept is absolutely transferable): "the whole point of many mobile-phone calls (and more especially of many text messages) is that, while their content may well be viewed as trivial, unimportant or even silly, it is their phatic function – the gesture of 'getting in touch', reassuring the other that they are in your mind – which is a critical one" (Morley, 2007, p. 225). Mobile phones have a very different protocol to blogs or Twitter and so the phatic effect of hyperlocal communication is different, but it is still critical. "The phatic function in all communications" is "the role of establishing and maintaining the communicative 'channel' through which the content of communications flows" (ibid.). So, the fundamental point in hyperlocal news may not be instrumental – the stimulation of debate and action based on the issues it frames – but the establishment and maintenance of communication channels that are specifically local and that have a phatic quality in that their existence and their geographic specificity enable the imaginary of a local social world. Rather than the gesture of 'getting in touch' in phone use, it is the symbol of 'we are here', that creates an orientation of care and involvement whose effects may not be visible within the channel of communication itself but in the way individuals behave towards their socio-spatial surroundings. It is because of this phatic quality that the content of hyperlocal communication, as far as it has been observed here, is better conceptualized in terms of "stories" than information, or even news. Though I would not suggest that Brockley Central has at any point intended not to 'tell' the truth, truth value is secondary to network-forming value in this case. Morley goes as far as to suggest that where "the 'phatic' relationship-building dimension of communication has been too much subordinated to its content, social relations have often broken down" (Morley 2007, p. 226). Here he is speaking about intra-organisational email communication, and the danger of neglect of non-instrumental social niceties in favour of a purely rational, instrumental, efficient

approach. I would hypothesise, though, that something similar is true of the hyperlocal public sphere: if it is required to be too instrumental, too rational subject to the expectations of activism and political productivity, the symbolism on which it is built could break down.

The power of this symbolism is in its ability to gather "imagined communities" (as Benedict Anderson puts it) or what I am choosing to call publics. Nationalism emerged around common languages, which themselves have much in common with communication technologies in that they are protocols and frameworks for communication with phatic qualities as well as content. Before local sovereignty developed, a Europe-wide "imagined community" of European Catholicism, up until the 16th century, was built around the use of Latin. The use of this language perpetuated the ideology that only the chosen few could communicate in the holy language and therefore with their god, mediating with divinity on behalf of the masses (Anderson, 1983, p. 15). What, exactly, they deemed to be the word of god was of less importance to the social power relations of the time than the very fact of control over the language of god, which was the most effective tool for sustaining positions of power. As networked social media have been thought of in relation to the communicative monopolies of broadcast media, so the democratization of learning and religious practices – through the translation of the Bible and other texts into the vernacular – was to the linguistic monopoly of Latin. Again, the power of the phatic is evidenced by the violent power struggles that played out in Europe in the 16th century over this translation. Losing control of the medium – in this case the language – was equivalent to losing control over the content. So, whilst Brockley obviously does not have its own language per se, it does have a set of sources of information (blogs, local businesses, and individual storytellers) and a set of texts (blog posts, tweets, written by and often about, and circulated by those sources, that cohere a space.

8.1.3. Conceptualising Networks

So, with the possibility for a symbolic, non-instrumental hyperlocal public sphere in mind, how does it work? Networks have been both used and critiqued throughout this work. They do describe fundamental realities of both technology and society, but currently tend to separate the two, and I would argue that we must employ a complicated definition of networks in addressing the city, even at the risk of losing empirical clarity. The public sphere observed in this work could not be described simply as a network of people tied to one another, however weakly, nor simply as a network of communication technologies. It is better described as a network of communication pathways between human and non-human, social and technical actors. This idea is not new, and has been widely argued within science and technology studies, following

Latour. Even Latour and his followers, though, tend to foreground technological artefacts, while this research has attempted to include spatial artefacts, which are also spatial communications settings, and the material, 'non-technological' media they contain. Recalling the anecdote in which an individual sees a poster on a tree in a park, sends a picture of it in a private message to another friend, who has already seen the event it is advertising in a blog post on Brockley Central about the programme for a festival. Neither the people nor the technological media in that constellation of communicative acts is a sufficient description of the way it is a network: the park, the tree, the piece of paper are all implicated as actors in a cross-mediated set of information flows that work together to reinforce the reality of a particular issue. The existence of popular parks with trees, the existence of events that take place in them, the existence of smart phones with cameras and private messaging apps: these are all conditions absorbed into a local communication ecology that networks such diverse phenomena in ways that make empirically pure research very difficult. What kind of dataset could account for all these variables? Networks are simpler when people communicate with people. People are not supposed to communicate with trees, but taking the tree out of the equation hides the real, spatial touch points between the "symbolic world" of media and the individuals that interface with it, and not *necessarily* with one another. This conceptualisation of the network also works against the dogma of 'disruptive technology' which fuels both the smart citizen and the smart city ideologies outlined in section 2.8. Both camps would hold that networks are drastically new, because they see them as something fundamentally technological, and technology as something fundamentally contemporary. In my own reframing, hyperlocal media works because there are already networks of storytelling in a neighbourhood that implicate such untechnological things as trees with posters pinned to them, and summer fayres, and people with time to walk from café to café sharing information. This is important because it works against the idea that technologies can instantaneously create new forms of public urban sociality – whether they be ones imagined by industry giants or activist designers, who share an ahistorical view of technology even if they differ over its application – in a way that urban designers should take note of when imagining how to create places. Of course, people still do communicate with one another through hyperlocal communication networks, but in highly uneven ways: just because there are not obvious barriers to interpersonal communication on Twitter does not mean everyone can and will talk to everyone else. People look for third parties to do storytelling on their behalf in media, and those media can be accessed through screens or through the windows of local cafés. Those third parties, the storytellers, do intensified local communication on behalf of an audience. Stories about the local do not start online but must be written through information

gathering. Twitter, anyway, is thought of in communication scholarship as a news medium (Kwak et al., 2010). However, where it intersects with the ideologically loaded space of the 'local community', around which there is still an imaginary of unfettered communication between unmediated bodies in streets and squares, it seems to take on the expectation of acting as a network of civic actors in direct, deliberative, productive communication. My point is not that this can never or should never be the case, but that we should acknowledge the value of impersonality, unproductivity, even uselessness, in building a networked hyperlocal public. Community has to be defined as something more constrained than this public, but can still be thought of in network terms. A tighter network of following on Twitter between businesses in Crofton Park, for example. There, the convergence of fixed locality, common interest and communicative ties leads to cooperation and mutual awareness. Having said that Brockley's public sphere is too large to be considered a community is not to suggest that no network relying partially on communication technology can be. These businesses are not always able to make face-to-face contact but their fixed location and physical display within the public realm make them mutually recognizable and able to form stable, mutual ties of cooperation. There are communities within publics then, and to identify where the values of community are playing out we must look carefully at the characteristics of networks and the types of association they are formed by. It is not sufficient to assume that all mediated networks are communities, and neither is it to assume that they are all virtual or dissociated from space.

Bearing in mind the social qualities of different types of networked communication, then, I suggest that the spatial and topological structures of those networks are themselves phatic. The involvement of businesses in hyperlocal communication flows explains this. When de Waal describes urban publics as: "[emerging] out of practices that over time had become associated with specific urban locations" (2014, p. 14), I would propose that actors such as businesses that can be visible and communicative within the space of the neighbourhood and its mediated public sphere can act as interfaces that tie the networks that constitute publics to location by associating those practices with the locations they are fixed in. They are held in common, in that people know that others like them visit them *and* follow them on Twitter, and they are also within reach, situating the texts those businesses as part of a network that is geographically contextual. I would even argue this constitutes a kind of proto-language, less extreme in its effects that the transition from Latin to the vernacular but effective nonetheless in "offering its members active and direct membership through language" (Warner, 2002, p. 108) by drawing on the names of local businesses as referents for gossip and storytelling, that 'outsiders' might not understand the significance of.

Nonetheless, in his description of the networked public sphere, Benkler argues that "observations that are seen as significant within a community of interest make their way to the relatively visible sites in that cluster, from where they become visible to people in larger ("regional") clusters" (Benkler, 2006, p. 13). This could be a description of the observation in this work of the way stories 'piggy-back' up and down in scale through different parts of the communication ecology. Benkler is specifically referring to the network of sites in the world-wide web, but his highlighting of "visible" sites relates to a specific type of network value that has been identified in this work. This piggy-backing takes place when nodes of *betweenness* that have access to publishing platforms of *authority* enable the translation of a story from one visible setting to another.

Businesses are both the mediated and the physical centre of the bourgeois public imaginary in Brockley, via a constant feedback loop of framing and circulation between the issues and changes that surround them and the storytelling of Brockley Central. Whilst there is value to the middle classes, in terms of refining and curating their leisure time in Brockley, in knowing what is going on there is also a highly symbolic quality to this awareness that performs involvement and also structures a perception of the region of placeness around their locations. The presence of businesses that feel familiar, through this awareness that does not require regular use, parochialises space. This process is remediated online, where association on Twitter within businesses parochialises the networked world of strangers on Twitter by making individuals seem close and familiar by being in contact with business owners on Twitter. The imagined ontology of the network is a kind of graphism, or writing. Associations are written between profiles, aiding imaginaries of connectedness and intensifying the sense of a community, even if the workings of it are more like a public. A Twitter following relationship or interaction between an individual and a business, even if it is functionally useless, 'writes' a willingness to participate in the public that can be read as a symbolic gesture by others but is not contained in the content of the communication. So even though it confounds neat pictures of social networks we must include non-humans, imagined-but-unobservable connections, and non-technologies in our notion of networks, and give them greater weight than just as carriers of information from one part of the network to another. Furthermore, we must untie the idea of the network from certain kinds of technology – the internet, mobile phones, and social networking sites, that have been sold on the basis of the inherent value of the network as a disruptive phenomenon – and allow it instead to be something comprised of many modes of communication both new and enduring.

8.1.4. Conceptualising 'Physical' and 'Virtual'

The relationship between material form and mediated communication is one of the hardest aspects of this work to discuss without falling into the same traps I wish to argue against. Even referring to a 'relationship between' allows for a dualism I have specifically discounted. It is simply not enough to talk about "real" spaces in opposition to "virtual", "cyber", or "digital" space (Turkle, 1996). Clearly the internet and its contents are as real as books, newspapers, television. In fact, these media have been argued for here as the technologies within which shared reality is created. Yet, the internet is not right there in front of us as we move through urban space. We know it is happening all around us, but it cannot be pointed to in a single location: if we try to describe where it is, it feels like a layer above or below that we gain temporary access to through screens. Really, though, this just represents an enduring fetishisation of the internet that derives from its relative newness – Daniel Miller has acknowledged that it is hard *not* to fetishize it from a scholarly point of view, but stresses the importance of not doing so (Miller, 2016b). John Durham Peters, whose philosophy of "elemental media" is the foundation for the theoretical conclusion to this work, argues that "old media rarely die: they just recede into the background and become more ontological" (Peters, 2015, p. 23) while their infrastructures become "mundane to the point of boredom" (ibid., p. 35). I believe this to be true: if I had told my respondents I was studying communication technology and then asked them about posters on trees, they would have thought I was mad. Inkjet printers are *highly* technological in a historical context but they are not what we mean when we now say *technology*, in a scholarly setting at least - they have receded. Media are best discussed without the language of technology, otherwise we artificially privilege novelty and ignore the importantly mundane. Hence the dominance throughout of non-technological and quite generic terminologies - 'media', 'issues', 'stories', 'communication' – that as concepts blur rather than reinforce false ontological barriers. As Miller points out, the internet is never a 'place', but just another mode of communication woven into daily life (Miller, 2016a, p. 2).

How to talk about Brockley's space and Brockley Central's sphere in this work then? Publics formed through the circulation of texts have always been virtual. So, the use of hyperlocal media - and indeed the use of any forms of technologically mediated communication in and about the city – do not require a new virtual space to be theorized into question. This 'virtual' realm, or 'world of symbols' pre-existed the internet, Twitter, and locative media. If anything, the technologies of hyperlocal media have re-embedded circulating discourse into the lived habitus of neighbourhood space, as spatial entities like local businesses have become communicative entities, and as

things like place hashtags and geo-tagging make constant reference back to place. Warner's notion of "concretization" is possibly the best description of how this happens:

"in addressing indefinite strangers public discourse puts a premium on accessibility. But there is no infinitely accessible language, and to imagine that there should be is to miss other equally important needs of publics: to concretize the world in which discourse circulates, to offer its members direct and active membership through language, to place strangers on a shared footing. For these purposes, language must be concrete, making use of the vernaculars of its circulatory space"

(Warner, 2002, p. 108).

The neighbourhood is a circulatory space for a set of texts that is made concrete both through reference to that space and by the public visibility of networking between spatially-embedded actors. We have seen first attempts in this work at ways to literally visualize this process that Warner alludes to, by mapping both the *topics* through which shared language and issues are created, and the *communication pathways* – in terms of Twitter following relationships, STIN relationships, and the locations of the actors within both. There are very complex issues to be dealt with though to take this method further. It could be extended to include a map of where the virtual public materializes, but there are public and private materialisations: some happen in theatrical congregations on Hilly Fields and others in the living room of an active resident who uses a mailing list to ask neighbours to come together and discuss an issue on the blog. Some issues that circulate within the hyperlocal sphere are drawn down from larger scales. In other words, it is not a finite realm but a crossover point of networks of information that become captured in hyperlocal terms. To describe this, we should complicate Wellman's "glocalism" (both global and local) to talk about a range of modes and intensities of involvement at a range of scales that constitute the local, through participation in different media.

Hyperlocal media facilitates the imaginary of the neighbourhood as a frame of the circulation of public discourse, and in this way strangers in cohabitation gain common membership of a social collectivity through the merest attention and without the constraint of commitment implied by community, but following Warner there is also an inverse. Because the framework of the neighbourhood enables the clearer concretization of a world - unlike the abstract space inhabited by a trans-national public - the site of the hyperlocal public can be comprehended in a bodily encounter. The circulation of discourse benefits too, and is surely amplified. Benedict Anderson's description of the newspaper describes perfectly how the imaginary of the public is realized in space, and strikingly reflects the accounts presented in this research. "Each

communicant [newspaper reader] is well aware that the ceremony he performs is being replicated simultaneously by thousands (or even millions) of others of whose existence he is confident, yet of whose identity he has not the slightest notion... At the same time, the newspaper reader, observing exact replicas of his own paper being consumed by his subway, barbershop, or residential neighbours, is continually reassured that the imagined world is visibly rooted in everyday life" (Anderson, 1983, p. 35). The reader, with faith of the existence of unknown other readers, reaffirmed by the materialization of those readers in third spaces such as businesses and public transport: this describes much of the experience reported by the respondents to this research. What, then, is transformed by the networked aspect of social media and blogs, in which readers sometimes (but most definitely not always) become writers and become visible on the same platform as dominant storytellers such as Brockley Central's publisher and local business owners? For starters, it does seem to blur the boundary between imaginaries and the lifeworld: because readers can enter these platforms with avatars – online representations of themselves – those that become highly active can and occasionally do become recognizable in place. There is a stronger reassurance of the rootedness of the imagined world when there is not just a link between the virtual category of 'fellow reader' and the instance of a(ny) 'fellow reader' in the next chair at the barbershop. More, there is sometimes a link between a specific fellow reader as witnessed on Twitter in conversation about an issue or event with a local café, with that same reader in the flesh at the counter of the café buying coffee on the way to work. While Anderson hints at the role of co-presence in reinforcing the public sphere, the mechanism he describes does not rely on proximity. Anybody in person will do to stand in for the idea of a fellow reader. The intensified and specified version of this afforded by hyperlocal media feeds off the proximity of readers to one another, going some way to explain the co-option of media by hyperlocal publics. Again, though, the suggestion is that we should see this co-option as historically continuous and a subtle shift in the relation between place and the public, rather than a total disruption of it. After all, interviewees describing this happening to them were in the minority, and largely the older division between readers and neighbours remains, just as protocols from almost all previous forms of communication co-exist with and are modulated by newer forms rather than totally replaced.

Hyperlocal media extends the lifeworld – "the spatiotemporal and social reference system, of a world that is 'within my actual reach'" (Habermas, 1985, p. 123) – beyond the extent of everyday physical use of space but short of the systemic space of urban society at large (i.e. the city as a public sphere). Habermas conceptualized the lifeworld as emerging from a set of communicative actions wedded to location, and the

affordances of storytelling via blogs and social media within a specific locality extend rather than replace or disrupt communicative capabilities that pre-existed them. Lifeworld-forming communicative practices such as the distribution of newsletters and the display of posters still take place, feeding into circulations that take place via more recent communication technologies such as Twitter.

We can also talk about this relationship in terms of 'remediation' of spatial communication settings or and their protocols in media. When it is said that "Twitter can be viewed as a public space" (Marwick and Boyd, 2011) care must be taken over the definition of publicness that is being remediated. From Goffman's account, the overriding communicative nature of public places is one of polite avoidance and the regulation of interpersonal disclosure. The hyperlocal use of social media also remediates this avoidance and inattention. Socially active artefacts[35]and spaces can triangulate between people in public through a shared focus on something external, just as followers of a hyperlocal Twitter feed can overcome strangerhood by common interaction with the 'mediated centre' of its network. It is also important to bear in mind the differences between media and the unmediated settings they remediate. Media are discursive – they are written, and can frame issues in full. Unmediated encounter with the material reality of those issues may concretize them in location, but it lacks communicative dimensions that can *only* be achieved through mediation. The idea of remediation contains the suggestion that before media there were wholly unmediated communication practices, with no recourse to written language. According to Daniel Miller, "for anthropologists there should be no such thing as precultural unmediated communication" (Miller, 2016b). The example was given of the Roman gazette, that provided the common material around which the fabled debate in the Roman forum took place. Media may *remediate*, but it does not mean they come *after*: they are also the basis for a shared reality that enables people to overcome the non-discursiveness of public space and enter into face-to-face conversation without relying on inter-subjectivity. Media enable neighbours in Brockley to transcend the mere fact of spatial proximity and become members of a localized public, but that public, carried out through unfocused and non-disclosive forms of communication, is not the same as a community, as characterized by Sennett as a grouping of inter-subjective and inflexible bonds.

8.2. Findings

The core question of this work was: *how can hyperlocal media and its publics be placed in one London neighbourhood?* The aim in asking this was to create a

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[35] See (Bingham-Hall, 2016b) for a discussion of triangulation in relation to sculpture in public

synthesised account of a neighbourhood that foregrounds both media and the built environment in a theoretical and methodological description of what constitutes a place and its public social life. This account has been built throughout, with reflection on each approach built into its exposition and analysis, and reflected on conceptually in the discussion section. Findings, in this context, consist of means demonstrated to be new ways to describe hyperlocal media spatially in an urban neighbourhood, that improve the methodological and conceptual frameworks already available and support future work. This section, then, recalls the methods developed in each section and the new perspectives they offer.

In the first method, focused on the mapping of spatial information available from the blog and its Twitter network, aspects of the built environment were reframed as *issues*, generated especially where a density of diverse land uses generate competing demands over space and rapid change – along an urban high street for example. In a hyperlocal context, issues consist equally of spatial phenomena and a framing in media. One is not a representation of the other: a change in the built environment must take place *and* that change must be framed as an issue in order for that issue to have a public. A hyperlocal blog can be placed, then, by mapping the issues it frames, as it is the distribution of these issues around which a geographically-specific imaginary of what constitutes the local is built on behalf of the public for Brockley Central. Applying this methodology at such a fine grain scale extends John Law's notion, that the framing of issues pertaining to geographical territories (such as nations) helps perform those territories as social entities, by suggesting that not only is the same true at a neighbourhood scale, but that the particular shape of that territory can be mapped by plotting the distribution of issues. Furthermore, whilst individual hyperlocal media channels have previously only been represented one-dimensionally in spatial terms, this methodology went two steps further. Firstly, it proposed the term *imagined region* to describe the simple, flat two-dimensional representation of the blog's territory that is derived from the top-down parcelling of urban space into clearly delineated administrative places. Secondly, it qualified this by arguing that *in practice*, through the framing of issues with a particular spatial distribution, the blog's territory was uneven in spread, concentrated along the high street and spaces that are closely topologically linked to it, and with much weaker coverage in residential areas and in the part of Brockley topologically severed from the high street. Furthermore, the blog's region in practice was shown to have been larger than its imagined region, which later grew to incorporate the locations framed. Dahlgren's notion that publics are overlapping was also illustrated by placing Brockley Central's issue map alongside two other blogs, suggesting that the territories of individual places as framed in media have weak and

blurred boundaries rather than clear administrative edges. Issue mapping has the potential to be very valuable for urban media research, in several ways: it demonstrates the possibility of a nuanced picture of coverage of hyperlocal, or indeed any, media across a city; it also adds nuance to the notion of how places are perceived, as concentrated and overlapping rather than delineated; and it provides a non-metaphorical language for describing how media are spatialized through the specific methodology of mapping the distribution of issues they frame. Two types of spatial data from Brockley Central's Twitter network were also mapped as proxies for the placing of Brockley Central's public. The first was data derived through geo-coding of fixed location descriptors provided by Twitter users on their profiles, which were also described to be their *imagined* locations as they are a combination of desired self-presentation via spatio-cultural markers and an idea of what scale of space is socially relevant to each individual. As this kind of data has been mediated through so many layers of technological and subjective determination it is not accurate enough to look for spatial patterns at the hyperlocal scale, but it did demonstrate that the public for a hyperlocal blog is distributed across a much larger spatial realm than the territory of the blog itself. As this realm was not continuous but consisting of individual locations separated by spaces that did not contain Brockley Central's publics, it was described as transpatial, and as such virtual in that it coheres through communication. This transpatial realm also expanded as the blog's contiguous territory grew, providing a spatial illustration of Webber's notion that interest groups carried out through communication occupy a shifting and ambiguous spatial realm unlike the Euclidean region of space within which a place can be observed. The second form of Twitter data was formed of locations recorded in geo-tagged tweets, showing where *in practice* members of Brockley Central's public were located at specific moments in time. This distribution again demonstrated the city-wide scale of the realm occupied by this public, but at a hyperlocal scale suggested that the spatial barrier of the train line through Brockley constrained this public's use of space. A public, then, can be placed by observing its traces in space via social media, with the realm it occupies reflecting, at the hyperlocal scale, similar spatial conditions to the region, in practice, of the blog it is a public for. Given that Twitter is only a partial definition of the hyperlocal public, though, and data derived from it limited to certain users, the value of this approach to placing publics lies mostly in its ability to illustrate the notion of a virtual public realm occupied by individuals in space but linked only transpatially.

In the second method, network analysis of Brockley Central's Twitter followers challenged the commonly held assumption that social media would lead to distributed many-to-many communicative connections and the breakdown of the 'mediated centre'

previously held by one-to-many communication forms like TV and radio. Brockley Central's public, defined again as its Twitter followers, was instead shown to be focused around a minority of highly visible actors who were mostly connected to one another, with a community-like clustering pattern, followed by a majority of disconnected actors mostly invisible to one another and with little clustering more like a public. It was argued that this public, or audience, was mostly connected directly to the hyperlocal mediated centre, which consist largely of local businesses, as well as local politicians, organisations, and other media outlets, and that only this centre had the power to reach a broad public. More detailed analysis focused on local businesses, which can be pinpointed in space and therefore offer the best basis on which to explore the relationship between the built environment and social media network. This demonstrated that network communities – groups of profiles sharing sense sets of interconnection – could be shown also to be spatial groupings, showing the possibility for a more detailed picture of the relationship between proximity and community formation than that which has previously been available. The geographical visualisation of these proximal communities of local businesses illustrated spatially the theory developed by Loureiro-Koechlin and Butcher, that stable Twitter relationships were built when there was a convergence of both interest and proximity, and that these could be described as communities. The social theory of the physical *third place* was also 'remediated' to provide a description of the ability for businesses to triangulate between strangers on Twitter, create mediated encounters in the otherwise impersonal public sphere, and support non-discursive symbolic communication that has non-instrumental value in tying people to place emotionally. Given the lack of connection between individuals, this non-instrumental symbolism, fuelled particularly by local businesses, was argued to be a valuable attribute of the hyperlocal social media network, that allows people to participate in the sharing and reading of stories on the blog without having to be tied to one another in instrumentally effective networks such as those imagined as the inevitable effect of social media on urban place within the smart citizen ideology. Further to this, actor-network theory was invoked to argue that even in a hyperlocal context, networks should not be seen as connections between people, but communication pathways between non-human actors that themselves have communication pathways with people, breaking down the notion that neighbours are directly connected to one another on Twitter by suggesting they instead have certain types of association shaped by their self-presentation on Twitter and the context in which the symbolic acts of following and retweeting are received. This approach combining network and spatial analysis at such a detailed scale is new, and could be the basis for an entire study refining it methodologically, but has the potential to be highly valuable in building a holistic picture of the way proximity and interest combine

to build a networked hyperlocal public sphere, the unexpectedly important role of local businesses as information brokers that sustain that network, and the important qualification between community-like and public-like forms of networking, with their differing implications for role of the social aspect of hyperlocal media in the social life of an urban locality.

The third method placed these observations within the context of the lifeworld of the neighbourhood, as seen through the eyes of residents of Brockley Central's territory, through the development of theory grounded in qualitative evidence of communication practices and imaginaries on behalf of interviewees that enrich the picture created through technological means of data collection by introducing phenomena that can only be recreated anecdotally. Specific communication practices and imaginaries observed were recounted in the conclusion section of chapter 6, and what is of interest here is the frameworks that were employed to explain the interview data and were further developed in doing so. Of these, the one that overarches this work is *storytelling*, and its associated communication infrastructure theory. Storytelling encompasses the idea of issues as things that are equally physical places and framings of those places in media and the non-instrumentality of communication networks. It also brings communication around these issues into the same framework, whether it takes place in settings that are framed in media or architecturally. In this way of thinking, media themselves, or the networks they afford, are not what the primary phenomenological reality for users of hyperlocal media. Rather particular stories are, and the way these stories are consumed or produced is fluid across various media at different scales, with Brockley Central being a key storyteller but the stories it shares being circulated via an infrastructure of public, semi-public, and private communication pathways, with varying levels of reciprocity between mediation and in-person communication. It was a key finding, then, that Brockley Central is not an isolated medium that simply communicates to an audience, but an actor in a network of multi-modal flows that constitute what has been described as the *hyperlocal communication ecology* including other 'smaller' media that produce stories through active in-person information gathering, and private networks of one-to-one communication through WhatsApp or email, for example, between close friends or residents of a single street. Interviewing also reinforced the importance of local businesses to the local communication ecology, not only as media actors but as some of the only places within which storytelling around issues on Brockley Central could take place in public. This observation reinforced aspects of Warner's theoretical characterisation of the way that texts form publics, requiring circulation through time and across different forms of media to embed themselves in social imaginaries. It was also observed that it is mostly in these private

settings, that are not visible on the blog or its social media feed, where storytelling between individual residents, around issues framed on Brockley Central, took place. This was explained through the notion of *theatrum mundi*, adapted here to suggest that hyperlocal media is a stage on which the performance of public life is played out by a small number of actors for an audience who *imagine* themselves as connected, but with only their shared witnessing of that stage in common and very little in the way of direct communication, allowing pure observation to be a form of participation in local public life. The observation of communication practices related to different scales of space was used to extend de Waal's notion of the *urban imaginary*, in which existing ideas of urban sociality shape the way media is adopted (a good description of hyperlocal media in general), to suggest the possibility of relating particular protocols of communication, with different assemblages of mediation and non-mediation, to mappable spatial forms such as streets and sub-localities. Finally, via the translation of the notion of *field of care* into a spatial region for each interviewee, it was suggested that individual perception of what constitutes the locality was formed mostly around the locations of businesses, which as we know are also the locations of issues framed on Brockley Central, and as such this field of care can be reshaped by reading Brockley Central to overcome habitual patterns of use of the area that are constrained by space. Such an approach is indispensable to an understanding of the relationship between media and place, revealing subtle ways in which mediated communication practices are shaped around spatial morphologies, and expanding the range of physical settings that can be taken into account in the ecological approach, than those which would be evident from online data collection. More phenomenologically, it also suggests that when finding language to describe this relationship, machine-readable definitions of the involvement of media in communication settings must be augmented with the idea that media can invisibly be part of situations in which they are not instantly visible, via imaginaries and orientations to the lifeworld that have set up those situations or changed use patterns or responses.

The final method draws on actor-network theory to translate Ball-Rokeach et al.'s conceptual framework into a socio-technical interaction network of people, places, issues, and media sources that constitute the hyperlocal communication ecology. Though this network is not empirically valid within the discipline of network science, it is argued that any mono-modal network, consisting of only one type of node and one type of connection (i.e. the Twitter network) cannot sufficiently represent the different types of actor and information flow that constitute a hyperlocal storytelling ecology. Network measures derived from the analysis of this network are therefore used 'metaphorically', to suggest the possibility of describing different types of actors (including media

sources and places) by their communication affordance rather than along ontological lines. In this way, people translate between parts and modes of the network but do not have authority, while Brockley Central and Hilly Fields Park share a similar role in being an authoritative stage on which public life can be performed. Recombining a geographical representation of the STIN network map with issue mapping, and finding they follow a similar pattern of concentration, demonstrates the particular effect of hyperlocal media in concentrating the content and the infrastructures of storytelling in the same place, blurring the distinction between *theatrical* publics that witness themselves in space, and *virtual* publics that gather in a disembodied way around texts. In doing so it argues against the classic distinction between immediacy and distance, suggesting that media can connect people virtually in place, *and* bring them into greater proximity, but *without* a recourse to the idea of the anthropological space in which everyone knows everyone and society matches perfectly to space. The socio-technical interaction network, and actor-network theory, I would argue, are approaches to communication in cities that have great potential for combining network and geographical analyses with qualitative data and theoretical frameworks. Furthermore, the language of actor-network theory provides a useful way to avoid the pitfalls of digital dualism, referring to communication pathways, associations, and human or non-human actors instead of the 'physical' and 'digital'.

Fundamentally, the building of storytelling content and infrastructure into one frame, carried out throughout this research, argues for a description of hyperlocal media, and presumably many other kinds of place-specific media, not simply as being *about* places as constituents in transforming space into a socio-culturally coherent entity via the imaginaries of its readers. This is not a new phenomenon, but historically continuous with the role of communication networks in holding territories together, from empires to neighbourhoods. Following the arguments set out by Innis and MacLuhan, it is not so much the content of media but their infrastructural conditions – and the way these conditions are spatialized – that give media their place-forming ability. Throughout, there has been a feedback loop between the pattern of spatial connections and communicative ones: morphology shapes land use, which generates issues and creates third places, about which and in which stories are told, which shapes where the public is imagined to be situated through its performance in media, which then intensifies the authority of the public character of those 'wheres'. The aim has not been to prove causality in this, but to demonstrate the relations between topological connection, region of practice, public realm in practice, communication infrastructures, field of care, and so on, arguing for the need to take account of the co-constitution of place through media and space in much greater detail than has been attempted within

either media or built environment discourse. As Matthew Zook has argued, media and urbanity reinforce one another. While he demonstrated that the biggest cities, where infrastructural networks converge, continue to dominate the creation the online public sphere globally, just as Baghdad did when it controlled access to the Silk Road trading routes, we should also think about the way a local high street and the actors situated along it dominate the production of the hyperlocal public, both spatially and through media. This historical scale of thinking allows us to get past the 'disruptive' notion of technological change and pay well-needed attention to what it is that the communicative past has to tell us about the media future, via mundane contemporary practices such as the retweeting of lost cats by local cafes.

8.3. Limitations

Though the case study of this research has seemingly been very narrow, the eventual frame of reference, bringing together social media data, network analysis, geographical and spatial analysis, grounded theory, and actor-network theory, has been very broad. So, has the phenomenological range of focus: from imagined connections, to material space, to virtual public realms. As a result, an amount of depth and rigour within each of these elements has necessarily been sacrificed. I uphold that urban communication in all its forms – including the realms of practices that can be considered hyperlocal media (which I think of more widely now than when framing an initial question) – cannot be addressed through any single disciplinary lens. It requires methods *and* theories from anthropology, computer science, urban morphology, network sociology, and science and technology studies. Only teams of researchers could satisfy these requirements, and combine breadth and depth. The analysis here has not addressed, for example, statistical normalization for socio-economic factors that may influence the way interviewees report their communication practices. An individual's occupation, for example, could have a significant effect on issues that are of interest to them and the means they have available to pursue those interests. In a study making this its sole focus, a much richer network and spatial analysis of a hyperlocal Twitter profile could pay greater attention to the differential activation of communication pathways through mentions and retweets, providing a more nuanced picture of the way storytellers operate. It is possible that in such a study, further means could be found to identify the location of non-business actors on Twitter. Vinicius Netto et al., for example, have experimented with using geo-tagged tweets as a proxy for residential location, assuming that where a user's first and last tweets of the day are regularly from the same location, that is their home (Netto et al., 2015). This is emerging and very new research developing extremely fine grained spatial analysis methods for Twitter that were not available as this work was being developed. Netto et

al. also used this proxy to map another factor that has not been dealt with in detail in this work: socio-economic status, or as it is commonly thought of in a UK context, class. This is a very important acknowledgement for this research. As respondents were self-selecting, no proactive attempt has been made to offer a picture of the hyperlocal public sphere that is differentiated along class or socio-economic lines. Nor was data on income collected, as differential class practices were not part of the research questions and anyway Savage et al. have established that income alone is no longer a sufficient definition of class (Savage et al., 2013). Class was simply too complex an issue to incorporate as a factor in an already difficult synthesis of variables relating to spatial and technological conditions. Nonetheless, as a side-effect, this research affirms classic ideas about the class make-up of the public sphere. The respondents were almost all professionals in, or retirees from, the information, service, education, and cultural sectors, that are identified by Savage et al. as consisting of individuals high in cultural and social capital, and also home-owners, which Savage et al. mark out as one of the key new indicators of class. The public sphere remains a largely bourgeois construction, in Brockley at least, and this is evident in the focus in Brockley Central on storytelling about built environment change on the basis of consumption preferences relating to the opening and closing of businesses. The question here was to locate the hyperlocal public, both spatially and in terms of its workings, but it seems that in doing so a reality is reconstructed from a very middle class point of view. So whilst it may be, for this set of data at least, a realistic portrayal it is by no means an unproblematic one. Negt and Kluge strongly critique the classical public sphere on class basis: "Kant excludes from politics and the public sphere all those sections of the population that do not participate in bourgeois politics because they cannot afford to. The construction of the public sphere derives its entire substance from the existence of owners of private property" (Negt and Kluge, 1993, p. 9). Whilst Brockley's public sphere has been described as largely apolitical, but positively so, Negt and Kluge's reference to property is striking. Indeed, perhaps its apoliticism derives from the positions of relative comfort and capital control enjoyed by most of the respondents to this work. Much wider ranging, team-based research may be able to use some of the methods here to identify differential workings of "counter-publics" (Warner, 2002). Perhaps a non-bourgeois public sphere could have identifiably different network values, in which direct links of cooperation and communication between individuals *are* established through media to enable concerted action and deliberation. Hopefully by pointing the way towards the synthesis of such network analysis with subjective reporting and a genuinely spatial understanding, such differences could be drawn out within and between neighbourhoods.

8.4. Further Work

A great potential, but also a great challenge, within work on urban communication is its fundamental cross-disciplinarity. It has become clear throughout this research that such a project is really an undertaking for a mixed team of scholars. A lack of mastery of techniques in collecting and analysing machine-readable data, and the more laborious manual processes that stood in for them, limited the degree to which such some methods could be repeated, removing the possibility of investigation of the temporal dimension of communication flows through comparison of several snapshots over time. Investigating hyperlocal media through the technologies it obviously employs inevitably allows those technologies to totalise our understanding of how and where the local public sphere is produced. Widening the scope, though, muddies the clarity of focus and limits the possibility for the scientific reliability offered by less critical, data-driven scholarship. There was a clear compromise to be weighed up between the repeatability of an experiment and the holism of a description. The former, applied across many hyperlocal channels, their imagined and practiced regions, the spatial characteristics of those regions, and the geography of their networked public realms on Twitter, may have offered some defensible claims about consistent effects of proximity, spatial accessibility, and specific urban morphologies on the geography of hyperlocal news (and particularly its inequalities). This would be fascinating research and is hopefully opened up by what has been presented so far (which is experimental and imperfect but as far as I can tell has not been attempted before) to researchers with the appropriate specialist skills. I would argue, though, that through its depth of synthesis of theory and concept, this study has offered new perspectives, and could be the basis for a number of comparative studies developing each of its approaches into scientific methods:

1. The application of issue mapping to the hyperlocal blogs of a whole city, via automated issue detection through language analysis, and automated geo-coding of issues and Twitter profiles, would provide a fascinating picture of the concentration of hyperlocal public regions and the spread of public realms. Linking a city-wide spatial analysis with such a map may provide convincing evidence describing the spatial conditions that foster the concentration of regions of practice, and a morphological explanation for the lack of public spheres in places such as New Cross (the hyperlocally inactive neighbourhood that sparked my own interest in this topic)

2. The informational value of local businesses, which was not a hypothesised aspect of this research and emerged unexpectedly, could be a productive starting point for research that specifically set out to develop a model for

quantifying this value across various neighbourhoods, using a mix of network analysis, issue mapping, and interviewing. It is clear from this work that locally owned businesses are doing a huge amount of work to support a healthy neighbourhood communication ecology, and as land-value increases threaten these businesses this quantification could be invaluable in strengthening the economic argument for their protection (made by Hall in the work quoted previously) with a socio-cultural dimension based in communication

3. The role of non-public communication practices in neighbourhood storytelling was also an unexpected outcome. Whilst much design-based and analytical work on urban communications has focused on the public realms of social media, text messages, in their various forms, could be studied qualitatively to offer a better understanding of how private messaging is shaped around urban imaginaries.

4. Finally, and of most interest to myself, the actor-network based methodology, which was used towards the end of this research as a reflection on both the data and the methods developed up to that point, could very valuably be employed as a starting point. A comparative study of the geographical and network patterns of communication ecologies across neighbourhoods, and in the case of proximal ones the links between them, would allow the communication-based definitions to be refined and defended. This would require a clearer definition from the outset of what constituted actors and communication pathways, but would still benefit from a multi-modal approach to identifying them across data collection from social media, blogs, interviews, and direct observation. Most importantly, it would benefit from the cross-disciplinary team of researchers that is required to address this most complex of phenomenological entanglements between social life, technological affordances, and urban morphology.

Acknowledgment

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Appendices

1. Interview advert

LONDON'S GLOBAL UNIVERSITY

⚏UCL
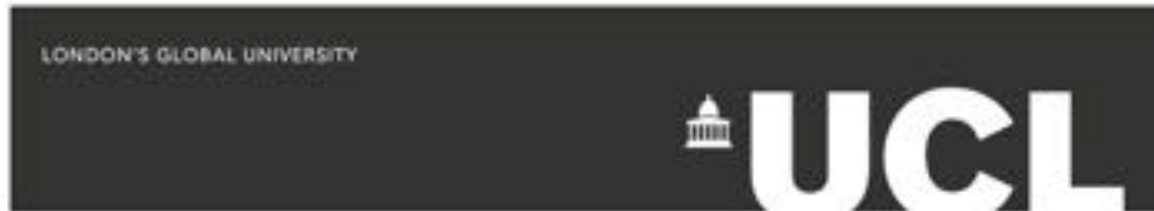
WHAT MAKES BROCKLEY GREAT?

I'm John, a New Cross resident and PhD student at UCL.

I'm looking for people who live and work in or around Brockley to take part in a study about the local community.

I'm interested in how blogs, newspapers, local cafes, pubs and parks help people meet, get to know each other and face local challenges.

All it takes is an informal chat and a few questions lasting around 25 minutes, in a café or public space that's convenient and comfortable for you.
I'll even provide the coffee!

All the information given would be treated in the strictest confidence according to the Data Protection Act

Of course, if you agree to take part you are under no obligations and would be free to pull out any time.

If you're interested please get in touch

john.bingham-hall.10@ucl.ac.uk

@public_culture

07840 274 341

Thank you!

University College London, Gower Street, London WC1E 6BT
Tel: +44 (0)20 7679 2000
email@ucl.ac.uk
www.ucl.ac.uk

2. Interviewee data

ID	Initials	Age bracket	Occu-pation	Postcode	Home-owner?	Years present address	Years total in area
0	TG	C	I	SE14 6QQ	0	3	20
1	MB	D	G	SE4 1QQ	1	5	5
2	JW	D	F	SE4 1RH	1	1.75	1.75
3	PB	D	J	SE14 6RL	0	1.5	1.5
4	JM	H	P	SE4 1AE	1	25	25
5	BG	F	M	SE4 1HN	1	2.5	18
6	CD	E	H	SE4 2SP	1	0.5	7
7	LJ	E	M	SE14 5TW	1	0	11
8	SM	F	D	SE4 1QQ	1	7.5	7.5
9	RL	D	M	SE4 2JE	1	2.5	2.5
10	TR	F	G	SE23 1DW	1	8	12
11	PM	F	G	SE14 5SD	1	8	8
12	JP	E	O	SE4 1AQ	1	5	5
13	OP	J	Q	SE4 1YL	1	32	36
14	PD	E	O	SE14 6NT	1	7	8
15	MB	I	N	SE4 1NQ	1	20	22
16	EB	C	O	SE4 2RW	0	1	3
17	SJ	I	K	SE4 1AU	1	12	12
18	DC	E	M	SE14 5SQ	1	1.5	3.5
19	JS	F	G	SE4 1JU		8	8
20	SS	F	M	SE4 1SS	1	5	11
21	CC	K	G	SE4 1QB	1	22	22
22	AK	G	P	SE13 7AF	1	10	16
23	JR	F	G	SE4 1EG		0	3
24	JT	E	L	SE4 2JJ	1	3	15
25	CW	G	G	SE13 7UB	1	12	25
26	NE	D	H	SE4 1NT	1	3	3
27	DW	C	H	SE14 6RT	1	1	1
28	JC	F	N	SE4 2HZ	1	8	12
29	SC	G	O	SE14 5SA	1	18	18

Age brackets
- A. 15-19
- B. 20-24
- C. 25-29
- D. 30-34
- E. 35-39
- F. 40-44
- G. 45-49
- H. 50-54
- I. 55-59
- J. 60-64
- K. 65-69
- L. 70-74
- M. 75-79
- N. 80-84
- O. 85-89
- P. 90+

Occupations (derived from UK census)
- A. Agriculture, mining and utilities
- B. Manufacturing
- C. Construction
- D. Retail, wholesale and motor trades
- E. Transport and storage (Inc. postal)
- F. Accommodation and food services (catering)
- G. Information and communication
- H. Financial and insurance
- I. Property
- J. Scientific and technical
- K. Business administration and support
- L. Public administration and defense
- M. Education
- N. Health
- O. Arts, entertainment, recreation
- P. Other
- Q. Domestic